

Concurrence, Transition and Evolution



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Concurrence, Transition and Evolution

Perspectives of Industrial Marketing
Change Processes

Per Andersson



STOCKHOLM SCHOOL
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Stockholm in January, 1996

Per Andersson

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PART I
PERSPECTIVES OF INDUSTRIAL MARKETING CHANGE

1 A Study of Industrial Marketing Change Processes

This study is motivated by a strong belief that the study of change processes should be at the core of industrial marketing research. The need to understand ongoing social, technological and economic change is central to the understanding of the functioning of industrial marketing and distribution operations. Individuals and collectives involved in industrial marketing operations exist in dynamic contexts, acting in the cross-points of multiple and multidirectional change processes. History and time elements are part of the inherent characteristics of industrial marketing organizations. The fluid, moving networks of relations making up the social context of industrial, organizational reality form the scene of individual and collective change agency, which is both constrained by structures created by past actions and events, and constructs the conditions and structures for future actions. This duality, the mutual, processual interplay between the industrial marketing organization structures and the marketing change actions is one of the core issues for understanding change, and hence one of the central issues of this book.

STRATEGIC MARKETING CHANGE

The study explores a key theoretical and practical problem in industrial marketing; how to create a major organizational marketing change in large and complex industrial companies and networks. Support for this choice of focus on marketing change processes can easily be found in many practical and theoretical domains of human activity. Established marketing channel theorists like Stern, Sturdivant and Getz describe how the accomplishment of marketing channel change and the design and management of distribution channels is becoming "a 'hot topic', as competition increases in recessionary times."¹ They also claim that in reality "few companies have managed this process successfully, mainly because it involves radical rethinking in a corporate field which is

¹Stern, L.W., Sturdivant, F.D. and Getz, G.A., "Accomplishing Marketing Channel Change: Paths and Pitfalls", *European Management Journal*, Vol. 11, No.1, 1993, pp.1-8

traditionally hostile to change."² It is even argued that the number of companies that understand how to design and manage marketing channels successfully is still small, and respected companies "have had difficulties in this arena."³

It can be argued that the bringing about of major marketing and distribution changes has always been a central area for practitioners engaged in marketing operations. However, marketing and distribution has not been acknowledged as a central part of companies' strategic planning.⁴ In the industrial marketing research community relatively little effort has been devoted to the development of ideas, concepts, theories and models for understanding major, longitudinal marketing and distribution change processes.

Given the changes in the social, technological, economic and political contexts of industrial manufacturers during the 1980s, it is easy to motivate a study which attempts to unravel some of the mechanisms underlying marketing change actions. The capacity of industrial firms to adjust their present marketing structures and operations - i.e. the ways in which they reorganize and adapt exchange relations with customers and other connected actors - is crucial to long-term survival.

Throughout this study emphasis is placed on describing and analysing the multidimensional reality of marketing change agency in industrial organizations. Strategic industrial marketing changes, we argue, are part of a continuous, unending stream of events. Changing, for example, the physical flows of industrial distribution or the social aspects of buyer-seller exchanges is inextricably interwoven with other political, social, economic and technological change processes. Understanding the mechanisms and the consequences of this embedded reality of industrial marketing when attempting major organizational changes was the challenge faced at the outset of the study.

A major part of marketing channel research has focused on the managerial challenges of achieving administrative and coordinative efficiency in seemingly stable system structures. Relatively little research has been devoted to the problem of strategic change and reorganization in the ongoing processes of contextual change. This study focuses on the contexts and processes influencing major strategic, ideological and structural, change in marketing operations. This study abandons traditional, systemic - stable and orderly - conception of industrial marketing systems in exchange for a conception of a both loosely and tightly coupled network, having fluid boundaries pervaded with cooperation and

²Ibid, p.1

³Ibid, p.1

⁴As stated by West (1989): "Poor understanding of distribution is due in part to the failure to appreciate its relevance to a company's strategic planning"(In: West, A., *Managing Distribution and Change*, Chichester: John Wiley & Sons, 1989. p. 1).

conflict, continuity in the processes of ongoing change, and paradoxical and ambiguous features. Leaving behind some of the comparative statics and static system conceptualizations of industrial marketing organizations, the study is concerned with how individual and collective marketing actions change over time, given the fact that they emerge in a dynamic, moving context with both stable and changing characteristics.⁵

The study explores the area of strategic reorganizations in order to provide concepts, ideas and thought-patterns for thinking about change, applied to the area of industrial marketing and distribution. We suggest that the study of change processes should be at the core of industrial marketing and distribution research. This statement embraces the idea of an inseparable relationship between change and stability. In one sense, change and stability are complementary and cooperative. In another sense they are mutually destructive or exclusive. Light and darkness cannot exist without eliminating each other. But the existence of each is only possible in juxtaposition to the other. Continuity and stability are inherent characteristics of industrial marketing organizations. Change is created with the long-term, stable processes of everyday marketing actions. Sometimes a new form of stability has to be created through a major change, going against some of the logics of the existing, stable operations and organization. When we approach industrial marketing phenomena from the point of view of change, the basis for the transformation processes in our study is the acceptance of the whole with its interdependent, stable and changing, characteristics.

Sztompka defends his standpoint to wish to supply moulds, language and thought-patterns for informed, critical thinking about social change in the following way:⁶

Is this goal defensible on practical grounds? What is the use of conceptual and theoretical knowledge of the kind we propose? Here we have to summon another important sociological insight, the principle of reflexivity, which claims that in human society knowledge has direct and immediate practical consequences. What people think about social change is crucially important in moving them to action, and hence it crucially influences the very course and prospects of social change. In this sense, enriching theoretical knowledge about change is by the same token practically relevant for producing change. The richer such resources are, the wider variety of available concepts, models and theories, the deeper and more critical their mastery, the more informed and self-aware human actions become, both the everyday actions of common people, and the change-oriented programmes of task-groups, organizations, social movements, governments and other collective actors. The scope and depth of sociological imagination is an important factor in shaping society's fate.

Accepting the notion that some degree of reflexivity exists also in the community of industrial practitioners and researchers, this exploration of industrial marketing change

⁵The term "moving context" is used throughout the study. It is beginning to appear in several strategic management texts. We have found an early use of the expression also in: Hinings, C. R. and Greenwood, R., *The Dynamics of Strategic Change*, Oxford: Basil Blackwell, 1988

⁶Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, p.xv

processes is interwoven with a detailed empirical study of Sweden's, and one of the world's, leading suppliers of biotechnology products and services, Pharmacia Biotech AB.

The study explores a strategic marketing change in the company. This implies a focus on marketing changes with intentional elements and of a certain magnitude,⁷ concerning change in the organizational structure as well as in the patterns of the organizational actors' views of marketing functioning. The study explores a strategic marketing change in Pharmacia Biotech which encompasses, according to Mintzberg's strategy definition, elements of "deliberate" strategies (intended strategies which become realized through proactive measures), elements of "unrealized" strategies, and elements of successive, "emergent" strategies, resulting from a large number of actions at different levels in the organization.⁸ With our longitudinal perspective and view of strategic marketing changes as continuous processes, the emergent characteristics of marketing change will be in focus.

Viewing marketing as concerned with value creation through exchange,⁹ we apply an interactive approach to marketing exchanges. The "marketing change" or "marketing reorganization" that is described in a separate case study of Pharmacia Biotech can be categorized as a set of connected processes ultimately aimed at changing the interactions and relationships with customers. In our particular case, focus will be on a marketing change encompassing three major types of change processes: a regionalization, involving a change of the organizations (number and constellation of organizational units including interactions and relationships between units) that bridge the gap between the company's production organization and the customers; a distribution change,¹⁰ changing the logistics and physical flows (encompassing warehousing, inventory control, transportation etc.); an after sales service change, aimed at modifying the long-term interactions and relationships with the customers by changing both the contents of the exchanges (introducing new services) and the organization of the long-term contacts and interactions with customers.

⁷In accordance with the definition by Pettigrew (1985): "Strategic is just a description of magnitude of change in, for example, structure and organizational culture, recognizing the second-order effects, or multiple consequences of any such changes." (In: Pettigrew, A., *The Awakening Giant*, Oxford: Basil Blackwell, 1985, p. 438)

⁸Mintzberg, H., "Pattern in Strategy Formation", *Management Science*, Vol. 24, pp. 934-948, 1978

⁹Following the definition by Bagozzi, R.P., "Marketing as exchange", *Journal of Marketing*, 39, pp. 32-39, October, 1975

¹⁰Although "marketing" and "distribution" often are used interchangeably, to avoid confusion we will here mainly use "marketing change" to denote the total set of emerging change processes aimed at changing the interactions with the customers, and use "distribution change" when describing a particular sub-set of change activities in the case aimed at changing the physical distribution and logistics operations.

The set of processes making up the "marketing change" encompasses elements of improved effectiveness and efficiency levels, changes in organizational/institutional structures and interactions between organizational units, and changes in the activities involved in bridging the gap between the seller and its customers. An important part of the argument is that a strategic marketing change will be difficult to separate from other changes in the context. Marketing change processes are embedded in contexts of many other organizational and technological change processes.

The set of change processes described has apparent emergent properties. In other words, a number of interconnected emerging marketing change actions ultimately lead to a strategic marketing change. From the change agents' point of view, these changes are strategic also in the sense that they break with former stable, perceptions about marketing functioning in the organization. In the case, change agents will in some parts describe the marketing changes as being "radical" or "fundamental" i.e. having a certain magnitude in the eyes of the change agents. Parts of these perceptions about the changes come from the fact that many stable norms are changed. Expectations about rights and duties and about the ways organizational units between Pharmacia Biotech and the customers should interact are changed.

THE EMERGENCE AND STRATEGIC CHANGE OF A BIOTECH SUPPLIER

By the second half of the 1980s, Pharmacia Biotech AB of the multinational, pharmaceutical Pharmacia Corporation was Sweden's largest and one of the world's major suppliers of biotech products and services. In 1986, following a long period of rapid sales increase and growth, Pharmacia Biotech acquired its main competitor within the company's most important business areas, LKB-Produkter AB, the second global Swedish biotech supplier. The difficult merger of the two companies lasted over three years and some of the unexpected consequences became the origins and triggers for a number of strategic marketing changes.

In comparison to the period immediately preceding the late 80s, Pharmacia Biotech entered a period of change involving and mobilizing most people in the organization, resulting in a major break with many of the company's established marketing traditions, routines, and organizational structures.

One of these marketing changes concerned the physical distribution and stocks of biotech instruments and chemicals. People in the central, Uppsala based organization and in local marketing subsidiaries were mobilized to reorganize completely the company's logistics

and physical distribution activities. Concurrently, a centrally coordinated project was started for restructuring the company's undeveloped after sales service operations. As a result of the merger, much of LKB's after sales experience had been lost, and the quality and efficiency levels of the new company's after sales operations are significantly lower than those of the most important competitors.

These two projects, the reorganization of the company's logistics and distribution activities and the restructuring of the after sales operations overlapped with two other change processes with significant effects on Pharmacia Biotech's marketing organization. In one of the biggest business deals ever in Sweden, the whole Pharmacia corporation was integrated in a conglomerate, the Procordia Group. Processes were started to reorganize Procordia's health care related organizations, including a merger of Procordia owned Kabi and Pharmacia. These deals lead to a restructuring of the Swedish pharmaceutical industry. During the same period, the company entered a phase of internationalization in which the old, nation based, net of marketing subsidiaries was rearranged and adapted to a new international situation. Regions and sub-regions were formed, and heavy emphasis was put on reorganizing the market organizations in Europe.

Embedded in these four processes, a number of other important marketing changes emerged. A project to implement a completely new, standardized EDI system was started. Within the regionalization program, ideas to develop a key account system for handling customer relationships in a new way were concretized, and quality improvements in production and in purchasing and supply operations were initiated to supplement quality programmes for ISO 9000 certification. Taken together, the projects and changes of the late 80s and early 90s came to constitute a peak of change in the marketing history of the company that became a major break with earlier traditions in the marketing organization.

The distribution and logistics, the after sales service and the regionalization changes might well have constituted the main story of our study of Pharmacia Biotech.¹¹ They were initially intended to constitute the main story and are in fact central parts of the late history of Pharmacia Biotech, but the story has come to cover much broader patterns of change and stability in the company, over the period 1959-1995, including a prologue starting off in the early 1940s. The historical, contextual perspective chosen for the story was not only a result of the author's emerging theoretical, paradigmatic affiliation. It was a necessity. The processes of managing marketing and distribution change were indeed the

¹¹The empirical work started off with the intention to delimit the study to the after sales service change. However, the project proved to be embedded in and dependent on a number of concurrent and historical change processes, requiring a successive extension of the empirical research focus. The process of constructing the case story is presented in the last chapter of the book.

focal research area and starting point and have remained in focus in the study. However, as the work proceeded it proved utterly difficult to make sense of the many complex and intertwined marketing change processes in the company in the early 90s, without a thorough understanding of the background of each process, of the history of the company and the mother organization Pharmacia, and of the moving, dynamic biotech-pharmaceutical industry context. It proved difficult to understand the dynamics of marketing and distribution without putting them in their equally dynamic, historical and present context.¹² We needed to go back not only one step in time, including the merger process in 1986, but to go back several steps in order to depict some of the long-term historical processes of the company and its contexts.

The case study does not provide any clearcut ending to the accounts of the marketing change episodes of the late 80s and early 90s. The story does not give us any clearcut end-results of the focal marketing changes. The case and the whole study rather rests on the assumption of continuous change; the end part of the story thus contains indications of a number of different beginnings, endings and intermediate processes. Of focal interest here are the processes that transformed the company into the company it is at this particular point in time in 1995, when we leave the story of how Pharmacia Biotech emerged as global biotech supplier.¹³

By using a contextual and historical approach to marketing and distribution reorganization processes, we open up for other, parallel stories to arise in the text: marketing changes as proceeding with the processes of establishing and decoupling a new company within the context of a multinational corporation; marketing changes as part of a company's long-term internationalization processes; marketing changes as intertwined with the company's successive, technological changes and shifts; and so on. It tells the story of a company that over time starts to reorient and adapt the organization, i.e R&D, production, distribution and marketing activities and organizational units, to the customers, in an effort to become more customer oriented. And on one level, it is also the story of how marketing and distribution activities change with the emergence and change of a completely new biochemical separation technology.

¹²The revision and new paths chosen, i.e. extending the systemic and temporal perspectives of the story, were also the result of strong advice given by people in the company during the first round of interviews. The processes of change could not be fully understood without an understanding of how the traditions had been established, it was said.

¹³As can be noted in the separate case book, the original linearity of the historical descriptions is replaced by more non-orthodox temporal accounting systems. Building on the assumption that marketing change agency involves handling aspects of the past, the present and the future, empirical accounts of changes and events are partly brought out of the original chronology and linear time structures.

By choosing as focal actor a company involved in the rapidly changing and growing set of tools and applications which have come to be distinguished as the "new biotechnology", some of the many intricate and inseparable links between technological changes and changes in marketing and distribution structures are revealed.¹⁴ The fact that biotechnology is not an industrial sector, but a broad generic technology that connects companies in many research, production and application areas contributes to the complexity of the case and the study. We argue that Pharmacia Biotech and its marketing operations emerge from this type of technologically complex context. The biotech supply operations are born within a traditional pharmaceutical company. Successively, the new laboratory product supplier develops positions in other networks outside the pharmaceutical sector, including actors engaged in biotechnology research and production. The new biotech company also successively develops more open supplier-buyer relationship with different units in the mother corporation. And ultimately, different roles of participating divisions and companies change over time.

The genesis of the new company can be located to the late 50s when a new chemical substance - a new separation media - for laboratory use is invented. The emergence of Pharmacia's engagement in biotech supplies starts partly as a cooperative venture between individuals in the Biochemical Institution of Uppsala University and Pharmacia, succeeding an earlier cooperative venture between the University and the sugar producer Svenska Sockerbolaget. As the new invention is commercialized, and later complemented with other products and up-scaled installations for industrial applications, a new organizational context emerges around the invention. The new techniques emerging from the invention soon develop to be standard techniques applied in activities not directly connected to the new biotechnology. The involvement in the latter emerges and develops gradually and in different ways and directions: products are supplied to firms engaged in new biotechnology research; the mother corporation's increased engagement in R&D and production of biotechnology based pharmaceuticals and diagnostic tests are made possible by the use of the new division's biotech supplies; process equipments are supplied to pharmaceutical and other companies engaged in large scale, industrial production of biotechnology based products, and so on.

A number of different supplier roles, and consequently a number of different marketing situations, successively emerged. Part of the ambiguity, complexity and multi-scientific characteristics that came to be collected in the new biotechnology during the 1970s and 80s, were reflected in the operations of the companies involved in this dynamic field. The

¹⁴Building on the early assumptions made by Alderson (1957). (In: Alderson, W., *Marketing Behaviour and Executive Action*, Richard D. Irwin, Homewood Ill., 1957, chapter XV)

complexity was also reflected in the subsequent efforts to reorganize the company's marketing organization.¹⁵

There was the complexity connected to the fact that the context in which Pharmacia Biotech's marketing reorganization efforts emerged was changing during the course of the processes. There was the complexity connected to the fact that the after sales change, the distribution and logistics change and the regionalization of the marketing organization all were affected by emerging changes at other organizational levels, e.g. the Volvo-Procordia deal. A further complexity of the marketing reorganization concerned the fact that it had emerged from a number of preceding changes. The merger between Pharmacia's biotechnology group and LKB had put its obvious marks on the organization and on the emerging marketing change processes. In addition, in the reorganization processes of the late 80s and early 90s, marketing traditions and organizational structures set long before the merger process in 1986 had to be changed. Pharmacia Biotech as a whole and the people set to organize the marketing changes had to overcome parts of the company's history of organizing its marketing operations.

EMERGING ISSUES, AIMS AND RESEARCH QUESTIONS

Following Pharmacia Biotech's marketing reorganization, the emerging issues and problems obviously concerned different actor levels: the change efforts of human change agents in the marketing change processes; a strategic reorientation of an emerging biotech supplier; the reorganization of the corporation to which the company belonged; and a moving industrial biotechnology context. The issues and problems concerned also different temporal perspectives: the more limited time frame of the marketing change processes and the concurrent changes at other organizational levels; the obvious links to changes immediately preceding the marketing changes; the marketing changes as part of long-term, historical processes.

Given the expressed interest in probing deeper into strategic changes of industrial marketing organizations, and the long-term aspects of marketing organization changes, a cluster of interrelated questions emerged in the initial stage of the research process:¹⁶

¹⁵Although the case study firmly relates to and can be put alongside the bodies of marketing and distribution literature connected to empirical studies of consumer product marketing systems and marketing systems in mature industrial sectors, it differs in the respect that the technological change processes are perhaps more openly made an important, integral part of the case story. The inherent technological complexity is coupled to the sophisticated combination of industrial goods and services exchanged in the marketing activities.

¹⁶A more detailed account of the background, emergence and change of the study is given in the methodological discussion in chapter 10.

How does a marketing change process transform over time in a changing context?

What are the forces behind change processes leading from one marketing organization structure to another?

How does a manufacturer over time change and adapt its marketing organization to changes in broader technological and organizational contexts?

Why does it from time to time reorganize its marketing organization?

There was the problem of understanding change agency in such an industrial marketing context. How did each responsible change agent in the after sales, in the distribution and logistics, and in the regionalization processes handle the fact that structures in which the changes were initiated themselves changed during the course of the processes, both as a result of the change agent's actions and of the actions by other actors in the context?

It was obvious that the reorganization of marketing operations was coupled to a number of contextual, multidimensional as well as multidirectional, change processes, sometimes supporting and sometimes counteracting one another. The focal marketing change processes were obviously embedded in a number of other change processes, directly aimed at or only indirectly affecting the core of the company's marketing activities. From the initial questions and insights was born the question and interest to unravel some of the intriguing relationships between marketing change agency and moving structures:

How does a manufacturer reorganizing its marketing organization handle the fact that change agents must accomplish the changes within and through structures which are transformed during the course of the change processes?

The emerging issues thus required addressing multiple levels of analysis, contextual as well as temporal, implying different approaches in terms of empirical descriptions and theoretical relations among entities. The emerging "how" questions signalled a need to describe marketing change actors and processes at several levels of analysis: change agent, company, corporation, and industrial context.

To the **first**, empirical, purpose to *describe and provide detailed accounts of the processes of a marketing reorganization in an industrial context* became coupled a **second**, more theoretically oriented purpose and interest. There emerged the purpose to *discuss the nature of the interplay between industrial marketing change agency and structure, given a processual perspective*. Thus, there crystallized a purpose to develop a more abstract theoretical reasoning around the interaction between marketing change agency and moving contexts.

The first, empirical purpose connects to the need in marketing research to provide insights into large-scale marketing reorganization processes, insights which can form the foundation for theoretical propositions and formulation of new research questions that support theory development in the area. The descriptive, explorative purpose can also be

motivated by its practical relevance. Empirical explorations of marketing change agency behaviour can help the practical formulations of marketing change policies and introduce a critical and informed thinking about marketing change processes in general, in industrial contexts. The empirical purpose to explore and describe a reorganization of an industrial manufacturer's marketing operations is accounted for in a case narrative of the emergence and reorientation of Pharmacia Biotech 1959-1995, with a particular focus on the period of marketing reorganizations 1989-1993.¹⁷

The second, theoretically oriented purpose is connected to an interrelated set of aims, issues and steps. The overriding purpose to theorize on the processual interplay between marketing change agency and moving structures in industrial contexts requires a general inquiry into the nature of social change processes. As part of the purpose emerged the aim to develop abstract theoretical tools for thinking about marketing change processes in general, using e.g. historical overviews of marketing channel models and theories and analyses of directions in the thinking about marketing change.¹⁸ The theoretical part of the study seeks to explain the empirical descriptions of marketing actors and processes of change at different levels of analysis by applying theory about social change in general to the particular context of industrial marketing change. The case study is used as proving-ground for developing these theoretical tools.

The chosen perspective to view industrial marketing change processes as continuous (with discontinuous characteristics), without easily defined beginnings and endings, can be transferred to our research context. An important part of the study will be to try to detect new research questions connected to new paths of inquiry. Despite the quest to provide simplified and condensed abstractions of industrial marketing change processes, we will underline the explorative, open-ended aspects of a study of this kind. Hence, the study will produce - along with the simplifications - a number of new, intriguing questions, puzzles and anomalies, pointing towards identifiable paths of further research.

To evaluate the strategic marketing changes in Pharmacia Biotech has never been the purpose of the study. Suffice to say, the technological breakthroughs that the company has been heavily involved with, in collaborations with researchers all over the world, have directly and indirectly, and often radically, improved the lives of many people. It was this small, but still, highly internationalized supplier, which in the 50s and 60s was able to provide radically improved methods for biochemical purification and separation, a

¹⁷The empirical-analytical discussion (Part II of this book), encompasses some additional empirical descriptions not included in the separate case book, including details which serve to deepen the empirical descriptions and support the analysis.

¹⁸Chapters 2 and 3 of Part I introduce this theoretical discussion.

well-known bottleneck in research world-wide. Pharmacia Biotech was the company which in the early 70s developed an up-scaled purification method for the pharmaceutical industry which opened up the possibilities to produce purified, clean, insulin for the world's diabetics. And it is the company, which in the light of increasing competition and maturing products, remains on the technological frontline as biotech supplier in the 90s, while concurrently implementing a strategic marketing reorganization and reorientation.

STRUCTURE AND CONTENTS OF THE STUDY

The study is divided in two entities. Complementing the analytical discussions of this book, a separate case book describes the emergence and change of Pharmacia Biotech 1959-1995. This book is divided in three parts. Following this chapter, chapters 2-3 of **Part I** will be devoted to a theoretical and conceptual introduction to the subject matter, strategic change actions in industrial marketing organizations. We look back on some of the theoretical origins in marketing and marketing channel theory, to see how they relate to and lead up to the perspectives on marketing change of this study. Explications and descriptions of the fundamental, analytical change perspectives and change concepts are provided, some of which are inducted from the empirical study of Pharmacia Biotech's marketing reorganization.

Part II (Chapters 4-7) leads into the discussion of strategic marketing change processes and the agency-structure interplay in a moving, industrial marketing context. Chapter 4 takes its starting-point in one of the marketing change episodes, a project to reorganize Pharmacia Biotech's after sales service activities in relation to its customers. With the processes of this change episode as focus, the chapters successively extend the contextual and temporal focus, putting the focal marketing change episode in the context of other change episodes, and in the moving inner and outer context of the company.

The more abstract analytical discussion continues in **Part III**. It elaborates in chapter 8 on three empirically and theoretically derived temporal themes and attempts to draw together some of the prior threads concerning different processual aspects of industrial marketing change agency. Chapters 9 and 10, lastly, summarize some of the theoretical, managerial and methodological messages and lessons learned, and new questions generated in the study.

The Case Book entails the story of Pharmacia Biotech. Chapter 1 describes some broad patterns of change in the company's industrial context. Chapters 2-5 presents the

story along three different time perspectives on the company's strategic marketing change. Chapter 2 covers the period 1989-1993, focusing on four concurrent change processes. Chapter 3 and 4 describes changes immediately preceding (1986-1989) and following (1993-1995) the marketing change processes. Chapter 5 sums up historical processes and events in Pharmacia Biotech's emerging marketing organization 1959-1986. Chapter 6 describes changes in Pharmacia Biotech's immediate, organizational context, in the Pharmacia Corporation. The Case Book was originally intended to constitute Part II of this book and it is suggested that it is approached as an integrated part of the study, preceding the more abstract discussions in Part II and Part III of this book.

2 The Development of Research in Marketing - Change in the Views on Change

What have been the moulds, ideas and underlying thought patterns that have shaped earlier, and subsequently, our present thinking about marketing organization change, and can we acknowledge any directions in this thinking about marketing change? What conceptions of change processes and what ideas about marketing organization dynamics have been provided through marketing theories and models? Where are we today, and can we put ourselves somewhere in the present development, in order to further develop this thinking about industrial marketing change processes? Following the principle of historicism¹ - i.e., that a better understanding of contemporary ideas about marketing system change is achieved by recognizing earlier and emerging conceptions - we present a conclusive interpretation of influential marketing models, theories and ideas developed over time. As we proceed, we will suggest some emerging directions in this thinking about marketing change, providing an ontological platform for approaching the coming descriptions and discussions of marketing change processes.²

In such a historical review it is impossible not to be selective in the choice of schools of thought in the rich source of marketing and channel conceptualizations. Likewise it is not possible to use chronology as guideline to describe a successively more elaborate view of marketing organization change. Rather, when probing into the rich source of marketing models, it becomes obvious that "linearity" in the history and development of ideas about

¹The reasoning in this section is inspired by Sztompka's (1993) discussion on the development of macrosociology: "One of the most precious pieces of sociological wisdom is the principle of historicism. It says that in order to understand any contemporary phenomenon, we must look back to its origins and the processes that brought it about. The same applies to the realm of ideas; it is impossible to understand contemporary views on social change without recognizing which earlier theories they stand against."(In: Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell,1993, p.xiv).

²Sztompka (1993) concerning the thinking about social change:"...I happen to believe that there is a clear direction in the changes of the theories of change, which evolve away from mechanistic developmental schemes claiming inevitability, necessity and irreversibility for social processes, and towards an emphasis on human agency, the contingency of events and openness of the future."(ibid, p.xiv).

marketing system change is difficult to depict - some ideas and conceptualizations emerge, develop, disappear and come back in a new shape. This becomes particularly obvious when approaching the comprehensive and leading work done by Alderson in the 1950s and 1960s.

WROE ALDERSON AND MODERN MARKETING THINKING ABOUT CHANGE AND DYNAMICS

Wroe Alderson was an author of great insight concerning the dynamic nature of marketing organizations. Many of his reflections and ideas on marketing organization change reappear in many later conceptualizations. For two reasons it is natural to start with Wroe Alderson. Firstly, many of our conclusions concerning modern marketing thinking and directions in the changing views on marketing change processes can be collected from and discerned in his early and comprehensive work. But, his explicit and implicit conceptualizations of marketing change processes are in parts also contradictory. Alderson becomes an important link between mechanistic micro economic views on change and the behavioral thinking which puts in focus open morphogenetic systems and human agency. Hence, Alderson's work is secondly also an important mirror, linking a number of central views on marketing organization change.³ Alderson's work is an important, theoretical stepping stone for understanding factors connected to marketing change and marketing agency-structure interactions, including: views of the market system and system-environment interaction, views on human, marketing behavior, and on the unified view of marketing organization and marketing behaviour.

Early American marketing theory including Alderson's work branched from economic theory, and all change in marketing channels were mechanically determined adjustments of humans behaving in a rational effort to maximize economic utility. Due to inadequate information, irrational behaviour, incompletely specified models etc., behaviours to maximize utility in channels could temporarily fail. Change was strongly linked to the mechanical strive towards economic optimization. However, despite the strong foothold in economic theory, the increased attention drawn to the distribution channel and the sometimes long route of transactions between production and final consumption led pioneers like Shaw to define marketing as "motion", however in static systems, and as

³Also noted by Blair, E. and Uhl, K. (1976): "...Alderson's thinking was a mixture of economic and non-economic concepts. Many of Alderson's non-economic ideas foreshadowed later applications of behavioral theory to marketing...Alderson's theory is an economic theory with unreconciled non-economic elements. These non-economic elements both damage and strengthen the theory. They weaken consistency, and must be purged to make Alderson's theory formally adequate...Alderson's theory would be consistent, but trivial if its non-economic elements were eliminated." (In: Blair, E. and Uhl, K., "Wroe Alderson and Modern Marketing Theory", College of Commerce and Business Administration, University of Illinois, AMA Proceedings, pp. 66-84, 1976, pp. 76-79)

the study of the "process" by which goods reached the consumer after several intermediate transactions.⁴

The economic model and its optimization assumptions for a long time continued to define why transactions occurred in marketing channels and explained changes due to deviation from or moves towards an optimum - irrespective of whether attention was directed at commodities transacted⁵, institutions⁶, geographical locations⁷, or at central distribution functions.⁸ Later, Alderson's writings on functionalism, combined with an adoption of a systems approach made it dominant by the early 1960s, and "possibly because of the greater dynamism of functionalism in explaining market changes", as noted by Blair and Uhl.⁹ the dynamic aspects of systems comes back in Alderson's definition of functionalism:¹⁰

Functionalism is that approach to science which begins by identifying some system of action, and then tries to determine how and why it works as it does. Functionalism stresses the whole system and undertakes to interpret the parts in terms of how they serve the system...Functionalism generally recognizes that the operation of a system is likely to change over time and that the essence of science is its dynamic aspect. To signify this attitude, some who accept the viewpoint of functionalism in general describe their perspective as the holistic-dynamic approach.

Marketing researchers were then forced to consider the marketing system environment. The input-output relations focus of Alderson's systems approach drew attention to factors directly (but not explicitly) connected to problems of easily describing and explaining market system change: problems of delimiting and defining an industry; defining and measuring effective competition and defining market efficiency.

Alderson introduced the "organized behavior system", operating in a heterogeneous market, leaving behind earlier conceptualizations of "atomistic" and "mechanistic"

⁴Shaw, A., "Some Problems in Market Distribution", *Quarterly Journal of Economics*, Vol.26, pp. 703-765, 1912

⁵Cox, R. and Goodman, C., "Marketing of Housebuilding Materials", *Journal of Marketing*, Vol. 21, pp. 36-61, July, 1956

⁶Breyer, R., "Some Observations on Structural Formation and the Growth of Marketing Channels", in: Alderson, W. and Shapiro, S. (eds.), *Theory in Marketing* (2nd series), Homewood, Ill.: Richard D. Irwin, 1964

⁷Grether, E., "A Theoretical Approach to the Analysis of Marketing", and Clewett, R., "The Clustering of Firms in a Wholesale Vegetable Market", in: Alderson, W. and Cox, R. (eds.), *Theory in Marketing*, Chicago, Ill.: Richard D. Irwin, 1950

⁸McGarry, E., "Some Functions of Marketing Reconsidered", in: Alderson, W. and Cox, R. (eds.), *Theory in Marketing*, Chicago, Ill.: Richard D. Irwin, 1950

⁹Alderson titled his final book *Dynamic Marketing Behavior*, and he always claimed organized behavior systems as his conceptual base, but the title and claim were misleading. The dynamism Alderson ascribed to marketing behavior was economically determined change which stemmed from recognition of market diseconomies or from changes in exogenous variables."(Blair, E. and Uhl, K., "Wroe Alderson and Modern Marketing Theory", College of Commerce and Business Administration, University of Illinois, AMA Proceedings, 1976, pp.69-72)

¹⁰Alderson, W., *Marketing Behaviour and Executive Action*, Homewood, Ill.:Richard D. Irwin, 1957, p.16. In Alderson's later work he presented more comprehensive and elaborate discussions of his functionalist approach to marketing theory.(See for example: Alderson, W., *Dynamic Marketing Behavior*, Homewood, Ill.: Richard D. Irwin, 1965, pp.1-22)

relationships between actors in marketing systems from his own "behavioral" view.¹¹ Although a number of unreconciled behavioral variables were included in the conceptual base, arguments and explanations for the dynamic organization of the marketing process were in many parts done without inclusion of non-economic behavior. Alderson's descriptions of the dynamics of organized behavior systems was still strongly coloured by the fact that his theory was born as an applied economic theory, but with some apparent behavioral elements. Atomistic and mechanistic views like the micro economic assumption that change came from the rational efforts by humans to maximize economic utility against the recognition of market diseconomies or changes in exogeneous variables, were still embedded in his assumptions of the organized behavior system. Despite the rather piecemeal inclusion of behavioral variables and explanations of market dynamics, Alderson's neoclassical heritage did not obscure the fact that some of his behavioral assumptions influenced later research.

Although Alderson's comprehensive, and sometimes contradictory, elaboration on the principles of functionalism and a systemic approach to marketing structures and processes revealed his micro-economic heritage, he also contributed ideas about change and dynamics which (re-)appeared in the 1980s and 1990s - often less obviously within marketing compared to other science areas, e.g sociology.

Alderson seemed to be reluctant to accept the micro-economic view that change was coupled to a strive towards an economically determined optimal structure, driven by rational conduct:¹²

Functionalism opens a much wider gap between descriptive theory and normative theory, between things as they are and things as they should be according to criteria of rational conduct.

Marketing systems were dynamic, continually improving systems. But improvements undertaken by marketing actors would not always be decided by purely economic considerations. In addition, Alderson refused to accept that these changes took place in easily defined, static market contexts:¹³

¹¹"The two concepts which project the essence of functionalist theory are the organized behavior system and the heterogeneous market. A complete definition of an organized behavior system draws on all of the primitive terms - namely, sets, behavior and expectations. A system is a set of interacting elements. A behavior system is a system in which the interactions take the form of human behavior. In an organized behavior system the organizing element is the expectations of the members that they as members of the system will achieve a surplus beyond what they could attain through individual and independent action. Among the elementary organized behavior systems are households and firms." (In: Alderson, W., *Dynamic Marketing Behavior*, Richard D. Irwin, Homewood, Ill., 1965, p.25).

¹²Alderson, W., "A Normative Theory of Marketing Systems", in: Sheth, J.N. and Garrett, D.E.(eds.), *Marketing Theory: Classic and Contemporary Readings*, Cincinnati: South-Western Publishing Co., pp.724-740, 1986, reprinted from: Cox, R., Alderson, W. and Shapiro, S.J., *Theory in Marketing*, American Marketing Association, Homewood Ill.: Richard Irwin, pp.92-108, 1964, p.107

¹³Ibid, p.107

There will always be room for improvement in marketing under the functionalist view of marketing theory. The policy maker at any level will be choosing among alternatives in the face of uncertainty generated by change and complexity....He may choose an action because it is right according to social norm and not merely advantageous for his organization. His choice must be made within a set of limitations which rest on the fact that he must work through a system and act on behalf of a system.

Within his discussion of the descriptive role of functionalistic marketing were the seeds of a historical, process and time based approach to marketing dynamics. Alderson's advocacy of functionalism in marketing implied a commitment to what was to be known as "the total systems approach". Marketing channels were part of broader systems and channel change was to be understood as a consequence of this wider, systemic dependency. He also brought into focus the complex relationship between the limitations imposed on marketing agents and the opportunities that system structures provided for actors aiming to improve marketing operations and structures in these large, organized behavior systems.

Together with Cox, Alderson also suggested that marketing actions, for example, the act to change an established structure, actually were embedded in a continuously changing context. This context changed partly as a consequence of daily operations; incremental changes were an inherent characteristic of marketing systems. Thus, the time dimension became important:¹⁴

That is to say that a market changes day by day through the very fact that goods are bought and sold. While evaluation is taking place within a marketing structure, the structure itself is being rendered weaker or stronger and the changes in organization which follow will have an impact on tomorrow's evaluations. Marketing theory will not provide an adequate approach if it ignores this interaction between the system and the processes which take place within it.

The compartmentalization and branching out of marketing theory that followed after Alderson, avoided this central problem for understanding marketing change. While the role of the agency for marketing change became developed in applied sociological and psychological schools of thought, and de-humanized, mechanistic distribution conceptualizations were developed within other schools, few, if any, researchers followed on the path briefly suggested by Alderson. The problem of understanding change in marketing systems as an issue of understanding the interaction between marketing agency (individual and collective actions) and the continuously changing structure in which it takes place over time was left unresolved.

¹⁴Alderson, W. and Cox, R., "Towards a Theory of Marketing", in: Sheth, J.N. and Garrett, D.E.(eds.), *Marketing Theory: Classic and Contemporary Readings*, Cincinnati: South-Western Publishing Co, pp. 817-836, 1986, reprinted from *Journal of Marketing*, 13 (October), pp.137-152, 1986

Snehota summarized Alderson's notion of "the organized behaviour system" by pointing to important properties that are made evident and which have implications for conceptualizing change.¹⁵ The market becomes a set of interacting exchange relationships rather than isolated individualistic exchange transactions. Furthermore, a market becomes not a phenomenon exogeneous to an economic agent such as a business enterprise but is made up of actors related to each other by exchange relationships. Accepting the deliberation within constraints in the acting of its components, then a market, as any organized behavioural system, will be subject to the evolutionary dynamics and behavioural patterns of an ecological system. It means accepting the necessity of dealing with the processes and dynamics of the system:¹⁶

Behavioural systems are structure-elaborating, morphogenetic. This requires leaving aside the assumption of the existence of an equilibrium state, a notion that is not compatible with the explanation of an ecological system subject to evolutionary processes. We should rather be concerned with the question of how the structural balance of a system is maintained, that is with the factors of its dynamics, (Alderson 1969). Attempts to analyze an organized behaviour system lead to concern with processes of change in the system over time.

The idea of leaving orthodox functionalism and mechanistic system theory, opening to a morphogenetic view of social systems, a view in which structures were constantly being built and transformed, appeared also - and much more explicitly - in sociology.¹⁷ Some of Alderson's ideas about marketing system dynamics can be interpreted in retrospect as coherent with a morphogenetic view, a view which was seldom explicitly addressed and problematized by marketing researchers in the 1970s and 1980s. To this belong his ideas about the heterogeneous market, with heterogeneous demands and supplies, forcing market actors to constantly search for differential advantage. One way to achieve this would be for market actors to change the present market structure,¹⁸ and another would be to employ or exploit technological innovations.

Alderson incorporated technology within his comprehensive marketing theory and in his treatment of organized behavior systems.¹⁹ While traditional economists before him treated technology as an exogeneous variable, a given which partially controlled but did not enter the marketing process, Alderson stated that marketing by nature forced

¹⁵Snehota, I., *Notes on a Theory of Business Enterprise*, PhD thesis, Department of Business Studies, University of Uppsala, 1990

¹⁶Ibid, p.95

¹⁷See for example: Buckley, W., *Sociology and Modern Systems Theory*, Englewood Cliffs: Prentice Hall, 1967

¹⁸"Alderson believed that firms could pursue differential advantage by changing the market structure of which they were part, and thus facilitate their functioning within that structure." (In: Blair, E. and Uhl, K., "Wroe Alderson and Modern Marketing Theory", College of Commerce and Business Administration, University of Illinois, AMA Proceedings, pp. 66-84, 1976, p.78)

¹⁹This is also noted by Blair, E. and Uhl, K., (ibid), p.77

participants to seek technological advance.²⁰ Marketing and technological change were inseparably interconnected.

Although Alderson acknowledged some of the weaknesses of microeconomic theories' rationalistic conceptualizations of the role and the behaviour of the marketing actor, he did not incorporate in his work the contemporary, emerging ideas of March and Simon, or Cyert and March.²¹ March and Simon's discussions on time and attention as scarce resources in organizational decision-making, the fact that organizations devoted more attention to activities that are failing to meet targets than they do to activities that are meeting targets, etc. challenged contemporary microeconomic thinking. However, although some of these appeared - in a less explicit and elaborated form - in Alderson's work, the influences from this path-breaking work were, on the whole, difficult to find in Alderson's discussions.²²

Marketing's shift from applied economics to applied behavioral science in the 1960s,²³ introduced the behaviour of several actors.²⁴ However, the early behavioral, managerial approach to marketing emerging, with its influences from decision theory, seemed like Alderson, equally reluctant to abandon the economic model.²⁵ Although Alderson's work foreshadowed much specialized research into the behavioural and social aspects of marketing, his partly mechanistic systems conceptualizations did not fully embrace the social and the human aspects, the role of agency, for understanding change processes in marketing systems. After him, attempts to link behaviors of sellers, buyers and distributors in one theory, was basically left behind, as the process of compartmentalization in marketing science gained momentum.

²⁰Alderson, W., *Dynamic Marketing Behavior*, Homewood, Ill.: Richard D. Irwin, 1965

²¹March, J. G. and Simon, H.A., *Organizations*, New York: Wiley, 1958, Cyert, R.L. and March, J.G., *A Behavioral Theory of the Firm*, Englewood Cliffs, New Jersey: Prentice Hall, 1963

²²"Alderson defined marketing as economic exchange between organized behavior systems. Organized behavior systems were defined through Barnard's (1938) model, as collectivities whose organizing glue is economic advantage, and whose members all act to maximize organizational achievement. March and Simon (1958) and Thompson (1967) have pointed out weaknesses in economic theories of organization, and have offered alternatives. Mancur Olson's (1965) theory of collective action offers another alternative,...", (In: Blair, E. and Uhl, K., "Wroe Alderson and Modern Marketing Theory", College of Commerce and Business Administration, University of Illinois, AMA Proceedings, pp. 66-84, 1976, p. 73)

²³Described in Kotler, P., "A Generic Concept of Marketing", *Journal of Marketing*, Vol.36, pp. 46-54, April 1972

²⁴"The transfer of focus introduced three new potential bases for market organization: behavior of suppliers (producers and distributors), behavior of consumers and behavior of the market environment." (In: Blair, E. and Uhl, K., "Wroe Alderson and Modern Marketing Theory", College of Commerce and Business Administration, University of Illinois, AMA Proceedings, pp. 66-84, 1976, p.70)

²⁵It is obvious e.g in: Howard, J., *Marketing: Executive and Buyer Behavior*, New York: Columbia University Press, 1963. It can also be seen how the new detailed accounts of consumers' behaviour still placed them in a passive and reactive position concerning the role as change agents in marketing systems. (Notable e.g in: Howard, J. and Sheth, J., *The Theory of Buyer Behavior*, New York: John Wiley, 1969).

To conclude, although parts of Alderson's work continued to have significance in marketing thinking, many of his explicit and implicit reflections on change and dynamics embraced ideas which much later came to influence marketing theory and practice. Later, ideas often came from applied science areas, and were not collected from Alderson's fundamental theoretical achievements. As we advance and are more explicit about our perspectives on marketing organization change, a number of significant elements can be resumed from Alderson's work: firstly, conceptualizing the marketing system as an open, organized behaviour system which is in constant and continuous change; secondly, explicitly introducing the processual, historical perspective on the dynamic systems; thirdly, recognizing that marketing systems and their change as intimately connected to technology and technological changes; and lastly, acknowledging the heterogeneous and constantly changing character of markets resulting from actions of interconnected behaviors of sellers, buyers and distributors seeking differential advantage (e.g through altering marketing organization structures).

Alderson's work helps our understanding of marketing change processes and the marketing agency-structure interplay in two ways. He is the direct contributor of perspectives on marketing change, and he is the indirect contributor who, through his role as "intermediary" in the history of marketing theory development, helps us illuminate emerging directions in the changing views of change in marketing organizations. His contributions have a central position in a discussion of emerging directions in conceptualizations of marketing change.

NOTES ON THE CHANGING CONCEPTUALIZATIONS OF MARKETING CHANGE

Any historical review of theory will inevitably be interlinked with the reviewer's own view. In light of this, it will be argued that, since Alderson, some obvious directions in the changing views of marketing and distribution change have emerged over time.²⁶ Despite the plethora of marketing disciplines and conceptualizations that exist, marketing in general has evolved from pure microeconomic, systemic/functionalistic, and non-contextual, behavioral approaches to change, towards more visible, and more multiplex, conceptions of change. Our interpretation of the historical development is not a full

²⁶The discussion is inspired by Sztompka's (1993) historical review of sociological thinking about social change. His discussion is centered around a typology concerning: the form or shape that the processes take, the outcomes or results of the processes, the awareness of social processes in the population, the moving force behind the processes, the level of social reality where the process operates, and the temporal scope of the process. Our analysis of marketing theories started as a chronological review (see Appendix 1). Later, being influenced by the review of sociological theories our chronological analysis of marketing thinking was adapted to the same reasoning, resulting in table 2.1. The analysis is influenced by Sztompka's discussion of views on social change and the perspectives described in the right column, are likely to be only vaguely ascending in marketing thinking. (In: Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, pp. 12-23)

inventory of the changing realm of ideas. Our review has been selective. It does not claim to encompass a complete inventory of the rich variety of explicit and implicit ideas on marketing change.²⁷ Being suggestive, and being influenced by emerging views on change in sociology, our overview provides an underpinning for the next step which is a more detailed framework for the study of the evolution and strategic change of marketing organizations. The exercise can help us understand some of the contemporary, dominating conceptions in marketing theory - some of which are still in their infancy - and help us refine and complement these ideas with ideas from other disciplines.

The overlapping theoretical schools of marketing, including the variety of marketing channel models, are founded on the rich heritage of applied science areas. The development of marketing thinking about change, are influenced by - and sometimes part of - the development in "nearby" science areas; e.g organization theory, strategic management, micro and macro sociology and economics.

Many different, explicit and implicit, conceptions of change in marketing have been accumulated over time.²⁸ Consider the analytical dimensions in Table 2.1 (p.27) which take us another step closer to a more elaborate ontological platform for approaching marketing change processes. (References to models and theories supporting the discussion are placed in the footnotes at the bottom of the page. See also Appendix 1.) The systemic-functionalistic model has been (and still is) influential as a cognitive instrument in marketing theory. However, with influences from open system perspectives in organization theory,²⁹ marketing theory is becoming influenced by views of organizations as embedded in and dependent on exchanges with the environments in which they operate.³⁰

²⁷Some of the marketing theories are collected in the chronology in Appendix 1

²⁸In other words, the developments in theories suggested here do not necessarily reflect clearcut dominance. The more recent directions in marketing thinking about change might even be far from dominant. Given the selective focus on aspects of change and dynamics, they might represent some new dimensions and ideas. Rather than being an attack on static, structuralist theories and models, it attempts to link marketing to ongoing scientific discussions on change and dynamics in e.g. organization theory, history and sociology.

²⁹See division of dominant models and theorists in organization theory made by Scott (1992), p.102. (In: Scott, W.R., *Organizations. Rational, Natural and Open Systems* (third ed.), Englewood Cliffs, N.J.: Prentice-Hall, 1992). He defines the open system perspective: "The open systems view of organizational structure stresses the complexity and variability of the individual parts - both individual participants and subgroups - as well as the looseness of connections among them. Parts are viewed as capable of semi-autonomous actions; many part are viewed as, at best loosely coupled to other parts.", p.92

³⁰This include, for example, references to *interactional, open system theories* like resource dependency theory (Pfeffer, J. and Salancik, G., *The External Control of Organizations*, New York: Harper & Row, 1978), to Weick's model of organizing and ideas of loose coupling (Weick, K.E., *The Social Psychology of Organizing*, New York: Random House, 1969, and social interaction and exchange theory (Cook, K. and Emerson, R., "Power, equity and commitment in exchange networks", *American Sociological Review*, 48 (1), pp. 217-241, 1978). Such open system ideas and references entered, for example, the texts of the so-called Political Economy Framework of marketing systems during the 1980s (Stern, L.W. and Reve, T., "Distribution Channels as Political Economies: A Framework for Comparative Analysis", *Journal of Marketing*, Vol. 44, pp. 52-64, Summer 1980).

Table 2.1. depicts our interpretation of the evolution of marketing thinking about change along eight dimensions connected to change, tracing for each dimension theoretical orientations and their evolution.

The three columns in the table are difficult to connect to clearcut periods in time in the development of marketing theory. For example, with the application in marketing of agency theory and transaction cost theory of the new institutional economics during the 1970s and 80s there emerged links to the rationalistic, micro-economic heritage of marketing theory, with roots in the 1940s and 50s (the left hand column), and with little attention to change processes.³¹ The closed systemic-functionalistic view of marketing systems (best represented by the middle column) continued to dominate marketing system perspectives during the 1960s, 1970s and 1980s. However, with the introduction of open system models during the 1980s came also an increased attention to marketing system-environment interactions,³² including channel dyad-environment interactions.³³ During the 1980s and 1990s, and parallel to the emergence of institutional, network oriented, organization theory,³⁴ via network views on industrial markets and marketing, the open network perspective was applied as a framework for understanding e.g marketing channel phenomena.³⁵ In this vein,³⁶ industrial network theorists' brought in network views on marketing systems with links to more encompassing formulations of systems encompassing different levels and thus with multiple and multidimensional causes of system change.³⁷

With influences from open system perspectives emerged - implicitly and indirectly - new perspectives on change in marketing organizations (represented by the right hand column). At the risk of oversimplification, it can be argued that although marketing system conceptualizations applied concepts and ideas from open system theories (resource dependence theory, institutional theory, etc.) and social interaction theories (social exchange theory), marketing theory in general did not shift attention, using the strength of open system theories, i.e their focus and perspectives on variation, change processes and

³¹As represented by Williamson's (Williamson, O.E., *Markets and Hierarchies: Analysis and Antitrust Implications*, New York: The Free Press, 1975) transaction cost theoretical influences on American marketing system theory in the 1980s.

³²Glaser, S., "The Marketing System and the Environment", *European Journal of Marketing*, Vol. 19, No. 4, pp.54-72, 1985

³³Achrol, R.S., Reve, T. and Stern, L.W., "The Environment of Marketing Channel Dyads: A Framework for Comparative Analysis", *Journal of Marketing*, Vol.47, pp. 55-67, 1983

³⁴See for example Powell, W.W., "Neither Market Nor Hierarchy: Network Forms of Organizations", in: Staw, B. M. and Cummings, L. L., *Research in Organizational Behavior*, Greenwich, CT: JAI Press, pp. 295-336, 1990

³⁵Gadde, L-E. and Håkansson, H., "Analysing change and stability in distribution channels - A network approach", In: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 166-179, 1992

³⁶Gadde, L-E. and Mattsson, L-G., "Analyzing Dynamics in Distribution", Paper presented at the 9th IMP Conference School of Management, University of Bath, September 1993

³⁷Thompson, J.D., *Organizations in Action*, New York: McGraw-Hill, 1967

system dynamics. The perspectives on change depicted in the right hand column of table 2.1., derived from open system models in organization theory and sociology (and referred to in marketing texts) are difficult to find in marketing theorizing. In the best of cases, influences from open system imagery and views on change enter marketing theory implicitly and indirectly.³⁸

As regards the first dimension, end-results of marketing change, the teleological view of change towards equilibrium states has remained an important foundation of theory development and is indebted to the micro-economic heritage. (See Appendix 1 for a brief overview of some of the early, dominating models of American channel research.) The more elaborate, but still finalistic views of marketing change which were introduced with functionalistic system theoretic models, dominated channel conceptualizations in the 1960s. Textbook views of marketing channel structures and processes still provide a view of a closed system, working with internal directional mechanisms towards equilibriums.³⁹ In social theory terms, these views represent a long tradition in marketing theory adhering to theories of convergence.⁴⁰ The more open, morphogenetic and continuously changing marketing system, as only vaguely suggested by Alderson in his discussions of marketing systems as organized behavior systems,⁴¹ emerged in discussions on marketing channels as dynamic networks in the 1990s.⁴² Marketing systems are not simply reproduced in processes concerned with preservation of stability and order, moving towards equilibrium states. In the processes of internal functioning, the marketing systems, the open networks, are continuously transformed.

³⁸Lack of attention to marketing system dynamics and change processes is part of criticism forwarded. See e.g. Gattorna's (1978) review of marketing system models. (In: Gattorna, J., "Channels of Distribution Conceptualizations: A State-of-the-Art Review", *European Journal of Marketing*, Vol 12 No. 8, pp. 471-512, 1978)

³⁹As represented by the systems, and functions and flow models of marketing channels and systems; e.g. Vaile, R.S., Grether, E.T. and Cox, R. (1952) and Alderson (1957). The systemic-functionalistic models also have a central position in textbook: e.g. Stern, L.W. and El-Ansary, A.I. (1988, 3rd ed.) (See Appendix 1 and list of references).

⁴⁰Other examples of such processes (theories of convergence) abound in structural-functional literature, which emphasizes the finalistic tendency of the social system to reach a state of equilibrium by means of internal mechanisms which compensate for any disturbances." (In: Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, p.13).

⁴¹Alderson, W., *Dynamic Marketing Behavior*, Homewood, Ill.:Richard D. Irwin, 1965, chapter 1

⁴²Gadde, L-E. and Håkansson, H., "Analysing change and stability in distribution channels - A network approach", in: Axelsson, B. and Easton, G.(eds.).*Industrial Networks - A New View of Reality*, London: Routledge, 1992, pp. 166-179, and Andersson, P., "Analysing distribution channel dynamics: Loose and tight couplings in distribution networks", *European Journal of Marketing*, Vol. 26. No. 2, 1992, pp.47-68.

Table 2.1. Perspectives on marketing system change (structure inspired by Sztompka 1993)

End-result of change:

teleological/finalistic change towards equilibrium driven by economic rationality	→	finalistic change towards balanced efficient/effective equilibrium, based on functionalistic, and system theoretical logics	→	morphogenetic, continuous change in dynamic, self-transforming networks
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Causes of change:

domination of economic-structural, uni-dimensional causes of change	→	multiple, loosely coupled economic, social-behavioral and political causes of change	→	multiple interacting causes of change, ultimately driven by human agency
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Locus of causality:

endogeneous (within systems) or exogeneous (originating in the environment)	→	endogeneous and exogeneous (system-environment interaction)	→	network endogeneous
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Linearity of change:

static state differences and uni-linear change	→	evolutionary, uni-linear systems change	→	non-linear, continuous and discontinuous change
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Agency role:

rational, proactive, atomistic change agents or system change <i>sui generis</i>	→	proactive, behavioral and social, atomistic change agents, or reactive, mechanistic and adaptive change agents	→	interactive, socially embedded change agents in a socially constructed reality
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Agency-structure relationship:

atomistic change agents, separated agency and structure conceptions	→	static, reactive/adaptive and implicit conceptions of the agency-structure relationship	→	morphogenetic, explicit and temporally dynamic and integrated agency-structure relationship
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Temporal-historical conceptions:

static, steady-state differences at different points in time, basically non-historical	→	comparative static, uni-linear time dimensions, or historical, evolutionary and step-wise conceptualizations of changing institutional forms	→	processual, explicitly time and history dependent changes, and more elaborated conceptions of the past, the present and the future
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Conceptions of stability and change:

focus on different static, stable states	→	focus on different, static, stable states and the administration of stability or on step-wise, evolutionary change processes	→	dialectical relationship between actions creating stability and actions to create change
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Concerning the causes of marketing change processes, the second dimension, the earlier domination of singular economic-structural causes and driving forces,⁴³ was successively replaced by multiple - but still mainly loosely coupled - causes of change. The earlier domination of economic driving forces and causes of change was challenged in the 1970s when micro oriented marketing channel studies began to focus on behavioral elements like power and dependence relations between channel actors.⁴⁴ However, the behavioral explanations of change were most often taken out of their marketing system context. Later, the interaction of multiple causes of change - technological, economic and social - began to enter discussions of marketing channel change, complementing the Aldersonian idea about the strong links between marketing and technological development.⁴⁵

As to the third dimension, the locus of causality, with few exceptions the early functionalistic-systemic studies seldom made system delimitation and system-environment boundaries and interactions a central problem for research.⁴⁶ The systemic approach to marketing systems that came to dominate basically made, and required, a clear distinction between the system and its environment. During the 1980s this changed. Some researchers explicitly considered the system-environment interaction, the boundary problem and the fact that driving forces for system change from within the system and in its environment interacted.⁴⁷ Connected to this, marketing researchers previously occupied with channel dyads began to question this delimited focus, arguing for a network perspective on marketing channels.⁴⁸ Research with a network perspective questioned the view of clear distinction between system and environment and the separation of endogeneous and exogeneous locuses of change causality.⁴⁹ Boundaries were determined by marketing actors' perceptions and processes of enactment.

⁴³See Appendix 1.

⁴⁴See review in: Gattorna, J., "Channels of Distribution Conceptualizations: A State-of-the-Art Review", *European Journal of Marketing*, Vol 12 No. 8, pp. 471-512, 1978

⁴⁵As represented by, for example, the so-called Political Economy Framework to marketing channels which distinguished (loosely connected) economic and social, power related factors governing channel structure changes. See e.g. Stern, L.W. and Reve, T., "Distribution Channels as Political Economies: A Framework for Comparative Analysis", *Journal of Marketing*, Vol. 44, pp. 52-64, Summer 1980

⁴⁶Breyer (1964) is among those who explicitly considered the logic and properties of marketing system-environment interaction. (Breyer, R.F., "Some Observations on the Structural Formation and the Growth of Marketing Channels", in: Alderson, W. and Shapiro, S.(eds.), *Theory in Marketing*, Homewood Ill.; Richard D. Irwin, 1964)

⁴⁷Achrol, R.S., Reve, T. and Stern, L.W.. "The Environment of Marketing Channel Dyads: A Framework for Comparative Analysis", *Journal of Marketing*, Vol. 47, pp. 55-67, 1983, and Glaser, S., "The Marketing System and the Environment", *European Journal Of Marketing*, Vol. 19, No. 4, pp. 54-72, 1985

⁴⁸"Eventually, the study of interorganizational relations in marketing channels should probably take the form of analyzing networks instead of dyads. Network analysis would more completely capture the complexity of interorganizational relations... (but) the state of network or systems theory is relatively weak and chaotic"(In: Achrol, R.S., Reve, T. and Stern, L.W.. "The Environment of Marketing Channel Dyads: A Framework for Comparative Analysis", *Journal of Marketing*, Vol. 47, pp. 55-67, 1983)

⁴⁹Gadde, L-E. and Håkansson, H., "Analysing change and stability in distribution channels - A network approach", in: Axelsson, B. and Easton, G.(eds.),*Industrial Networks - A New View of Reality*, London: Routledge, pp. 166-179, 1992

The fourth dimension concerning views on the form, the linearity, of marketing system change remained mainly implicit. Micro economic and systemic perspectives implicitly made the assumption that marketing systems moved through uni-linear, incremental processes towards the preferred equilibrium and end-state. During the 1960s, they were complemented with evolutionary models of retail systems which explicitly introduced circular models, mainly closed cycles of evolution.⁵⁰ During the 1990s, network theorists introduced into marketing alternative views on the forms of change; ideas about non-linear change (evolutionary and revolutionary change processes with qualitative leaps) and path-dependent change processes were introduced.⁵¹

Regarding the fifth dimension, with the emergence of a network view the change agent's role became more openly interactive. Historical conceptions relied on micro-economic thinking which were replaced by two broad conceptions in the late 1960s: the (still) invisible, reactive and mechanistic view of the human change agent in marketing systems, and the proactive marketing manager and marketing department emerging with the behavioral influences on marketing.⁵² As to the sixth dimension, integration of theories on marketing behaviour and marketing structure development was not in focus of attention.

With some exceptions, temporality and history, the seventh dimension, was seldom made part of discussions on theory development in marketing.⁵³ In the 1980s and 1990s, marketing researchers suggested that marketing should draw attention to historical research, including methods.⁵⁴ Explicit suggestions to draw attention to the dialectical relationship between marketing system change and stability - the eighth dimension - replacing the strong focus on static stable states or step-wise (often cyclical) evolutionary processes of institutional forms (of retailing and wholesaling) also emerge in the 1990s.⁵⁵ The focus on change as static state comparisons or stable, incremental,

⁵⁰Hollander, S.C., "The Wheel of Retailing", *Journal of Retailing*, Vol. 24, pp.37-48, July 1960

⁵¹Gadde, L-E. and Håkansson, H., "Analysing change and stability in distribution channels - A network approach", in: Axelsson, B. and Easton, G.(eds.),*Industrial Networks - A New View of Reality*, London: Routledge, pp. 166-179, 1992, and Lundgren, A., *Technological innovation and Industrial Evolution - The Emergence of Industrial Networks*, Stockholm: EPI, 1991

⁵²Kotler, P., *Marketing Management*, Prentice-Hall, Englewood Cliffs, New Jersey, 1967

⁵³In macromarketing and in the research on the evolution of institutional forms of retailing and wholesaling understanding the long-term historical evolution of systems came early in focus.(See e.g. Hollander, S.C., "The Wheel of Retailing", *Journal of Retailing*, Vol. 24, July 1960, pp.37-48)

⁵⁴Explicit suggestions concerning the need to integrate historical research in marketing are given by Savitt, R. "Historical Research in Marketing", *Journal of Marketing*, Vol. 44, pp. 52-58, Fall 1980, and Nevett, T., "Historical Investigation and the Practice of Marketing", *Journal of Marketing*, Vol. 55, pp. 13-23, July 1991.

⁵⁵Gadde, L-E. and Håkansson, H., "Analysing change and stability in distribution channels - A network approach", in: Axelsson, B. and Easton, G.(eds.),*Industrial Networks - A New View of Reality*, London: Routledge, pp. 166-179, 1992, and Andersson, P., "Analysing distribution channel dynamics: Loose and tight couplings in distribution networks", *European Journal of Marketing*, Vol. 26. No. 2, 1992, pp.47-68.

evolutionary change processes was complemented with explicit suggestions that marketing research should focus on the dialectical interdependence between change and stability.

The picture depicted of emerging directions in the general thinking about change in marketing science represents a collection of vague, sometimes implicit and well hidden, indications from different schools of marketing thought and niches of marketing research. However, when approaching the long, historical stretch of marketing research, with the specific aim to unravel emerging conceptualizations of change and dynamics in marketing system contexts, it is easy to lose sight of the whole. That is, leaving aside the individual "trees", representing various conceptions of change in marketing thinking, what are actually the general, distinctive features of the "forest", i.e how has marketing theory as a whole theorized about the processes of change in marketing system contexts? When focusing on change, change easily becomes omnipresent and the status ascribed to theorizing on change in marketing is exaggerated. A more pessimistic, critical and detached analysis might come to a conclusion for marketing theories similar to Pettigrew's in his analysis of theories on strategic and organizational change:⁵⁶

As with so many other areas in the social sciences the empirical findings and theoretical developments in the field of organizational change are method-bound. For as long as we continue to conduct research on change which is ahistorical, acontextual, and aprocessual which continues to treat the change programme as the unit of analysis and regard change as an episode divorced from the immediate and more distant context in which it is embedded, then we will continue to develop inadequate descriptive theories of change which are ill-composed guides for action. Indeed as I have implied already there is still a dearth of studies which can make statements about the how and why of change, about the processual dynamics of change, in short which go beyond the analysis of *change* and begin to theorise about *changing*.

In a similar fashion, the multitude of comprehensive, managerial strategies for distribution and general marketing emerging in models and textbooks during the 1970s and 1980s were not theories for understanding the historical, processual, contextual interdependence between marketing change agency and contextual structures. They were generalized models for planning for, deciding on, choosing and introducing almost any (arbitrary and fragmentary) type of marketing change, and thus, did not theorize on processes of changing.

As we move along, we will need some models of change, some cognitive instruments for grasping the dynamic nature of marketing organizations. The systemic models which still underlie many models of marketing organizations and systems have over time been very influential in theory development. However, we argue here that in order to grasp the

⁵⁶Pettigrew, A., *The Awakening Giant. Continuity and Change in ICI*, Oxford: Blackwell, 1985, p.15

dynamic nature of marketing organizations more adequately we need to derive more elaborate and multidimensional views on how these organizations change. Table 2.1. depicts important dimensions and the right hand column introduces bearings that will guide our perspective and continued conceptual discussion. As we move along, conceptual elaboration and empirical insights will throw light on these dimensions and perspectives on change.

Two of the dimensions in the list concerns the view of agency and agency-structure interaction in marketing contexts. Taking here the standpoint that change processes in marketing organizations are ultimately driven by the actions of humans, we need a model for how to grasp the nature of human actions in marketing organization contexts.

MARKETING AND VIEWS ON AGENCY

Views on change processes in marketing theory have changed over time because the applied sciences which influence marketing theory have changed. Although marketing researchers and theorists in general managed to build up a broad repertoire of ways to approach and understand marketing and distribution problems, one important question remained rather well concealed within the emerging theoretical discussions and model descriptions: What was the underlying thinking about agency, i.e. what was the philosophy of human nature and humans as change agents embedded in models and theories? Marketing theorists seldom were, and still are not, explicit about their assumptions of human nature nor about their role as change agents in marketing contexts. Consequently, there emerged a plethora of underlying assumptions. For example, the emerging view of marketing as concerned with exchange and embedded social interactions between marketing actors were often added to (remaining micro economic) rationalistic views where proactive marketing managers' largely independent choice behavior was assumed to be highly autonomous, rational and intendedly purposeful. The views that different marketing theorists took regarding the choice of level of analysis had subtle but far-reaching consequences for, for example, their views on deterministic-voluntaristic orientations of marketing actors.

The assumptions of individual and collective action associated with marketing system models developed during the two decades of theoretical specialization after Alderson, were influenced by the implicit assumptions of the applied organizational, economic, systems and sociological/behavioural models. In terms of Astley and Van de Ven's classification (of organization theories), marketing models provided a mix of underlying assumptions. Individuals and collectivities were sometimes indiscriminately depicted as

being "proactive", "reactive", "interactive" and/or "inactive".⁵⁷ For example, the application of a population ecology explanation for long-term change in marketing systems, e.g retail organizations, deemphasized the agency role, explaining change by the laws of natural evolution (variation, selection and retention) and behavior was dependent on environmental selection. As a consequence the marketing manager was implicitly ascribed an inactive or even alienated role.

In the same way, the dominating systemic-functionalistic conceptualization of marketing systems assigned individuals and collectivities in marketing contexts an overly reactive role. Behavior was determined, constrained and mostly adaptive, dominated by structural, systemic changes to arrange roles and positions in order to achieve internal efficiency and an effective overall function of the system. Marketing systems were changed and adapted mainly in response to various environmental and technological changes.

The emergence of the marketing mix based models for marketing management in the 1950s and 60s - which later strongly influenced conceptualizations in the managerial marketing channel models - introduced another picture of marketing managers and other individual actors and their influences in marketing systems.⁵⁸ The marketing mix literature emphasized the voluntaristic, one-directional and overtly proactive dimensions of human behaviour in marketing contexts, conveying a picture of rational choice behaviour. The assumption of the constructed, autonomous behaviour of proactive marketing actors was in part a natural continuation of Chandler's influential work, embracing the proposition that management strategies were the independent factors giving the structural forms of American industrial enterprises.⁵⁹ The managerial marketing mix paradigm depicted change agents similar to the "strategic choice view" and "planning school" of the strategy literature, which according to Astley and Van de Ven's classification and description implied that:⁶⁰

...both environment and structure are enacted and embody the meanings of action of people, particularly those in power. Managers are viewed as acting in a proactive role, and their choice behavior can be described as being intendedly purposeful, hedonistic and rational.

⁵⁷Astley, W.G. and Van de Ven, A.H., "Mapping the Field to Create a Dynamic Perspective on Organization Design and Behavior", in: Joyce, W.F. and Van de Ven, A.H.(eds.), *Perspectives on Organization Design and Behavior*, New York: Wiley, pp.427-468, 1981

⁵⁸Kotler, P., *Marketing Management*, Englewood Cliffs, N.J.:Prentice-Hall, 1967

⁵⁹Chandler, A., *Strategy and Structure*, Cambridge, Mass.: The M.I.T. Press, 1962

⁶⁰Astley, W.G. and Van de Ven, A.H., "Mapping the Field to Create a Dynamic Perspective on Organization Design and Behavior", in: Joyce, W.F. and Van de Ven, A.H.(eds.), *Perspectives on Organization Design and Behavior*, New York: Wiley, 1981 p.437

Views of human rationality and choice and decision behavior, embracing all of its ambiguity, arbitrariness and indeterminacy, which emerged during the same period, had marginal influence on the marketing management literature.⁶¹

In the development of marketing's thought about the underlying motor, the driving forces for change in marketing contexts, including visions about the role of human agency, two dominating conceptualizations crystallized during the 1970s. There were the functionalistic and mechanistic system theories, with their obvious microeconomic historical heritage, that viewed marketing system change, history and processes as appearing above the heads of the men and women operating within the systems. Research focus and change explanation focus were directed to changes in the composition of roles, positions, functions and relations within and between subsystems of a larger systems context. It was a world *sui generis*,⁶² a marketing world in which the actions and endeavours of people were either disregarded completely or implicitly treated as an "invisible hand", made up of the aggregate changes and composite results of all individuals in the marketing system. Human change actions, if depicted, were reactive and determined by the functions and composition of the system. The second dominating view ascribed marketing change to the proactive marketing manager and marketing department.

Marketing change agency and strategic and structural change

The proactive, rational decision making marketing actor of the dominating marketing management texts and models appearing in the 1960s, 1970s and which continued to dominate in the 1980s, became strongly related to the processual, strategy formation conceptualizations implied by Selznick, Chandler and Ansoff, and later refined by followers of the Bain-Mason, industrial organization paradigm, e.g Porter.⁶³ Hence, the picture of the marketing strategy formation and change processes that were institutionalized in the literature was what later became denoted as the planning mode⁶⁴, the linear view⁶⁵, the rationalistic view⁶⁶ and the design school⁶⁷ among corporate

⁶¹As discussed by James March and associates. (For an overview, see March, J.G., *Decisions and Organizations*, Oxford: Blackwell, 1988)

⁶²Term used by Durkheim, E., *Elementary Forms of Religious Life*, New York, 1912

⁶³Selznick, P., *Leadership in Administration*, New York: Harper&Row, 1957, Chandler, A., *Strategy and Structure*, Cambridge, Mass.: The M.I.T. Press, 1962, Ansoff, H.I., *Corporate Strategy*, New York: McGraw-Hill, 1965, Porter, M., *Competitive Advantage: Creating and Sustaining Superior Performance*, New York: Free Press, 1980

⁶⁴Mintzberg, H., "Strategy-Making in Three Modes", *California management Review*, Vol.16, pp. 44-53, 1973

⁶⁵Chaffee, E.E., "Three Modes of Strategy", *The Academy of Management Review*, Vol.10, pp. 89-98, 1985

⁶⁶Johnson, G., *Managing Strategic Change*, Oxford: Blackwell, 1987

⁶⁷Mintzberg, H., "Strategy Formation: Schools of Thought", in: Fredrickson, J.(ed.), *Perspectives on Strategic Management*, New York: Harper&Row, pp.105-236, 1990

strategy researchers.⁶⁸ The fact that a strong relationship was believed to exist between the structural external and internal properties of a marketing organization and an *a priori* defined marketing strategy, directed attention to the analysis and planning modes of sequential, step-wise change processes.⁶⁹ Marketing management processes were put into a formalized marketing decision framework.⁷⁰ Prediction and forecasting procedures received a central, dominating role.⁷¹ The problems of making marketing planning procedures work, relating to strategic management research, were in some few cases entering the marketing management literature.⁷² With few exceptions, marketing researchers seldom discussed alternative models associated with the managerial and organizational aspects of marketing relying on insights from general management and strategy research.⁷³

..in our haste to solve the technical problems of marketing we may have overlooked the problems associated with the managerial and organizational aspects of marketing. Marketing management is therefore biased towards strategy-making, analysis, and planning. It assumes that whatever answer the analysis throws up will be magically converted into action that will lead to satisfactory outcomes. And by dehumanizing the market management process it might suggest that marketing is a management-free zone.

Channel management literature addressed aspects of administrative coordination and the handling of conflict, cooperation and power relationships in channels, but these aspects were isolated from the planning for and implementation of marketing change. The linear, rationalistic planning model and its ideas about human choice and decision behavior never were openly questioned by marketing channel researchers. Despite the focus on environmental analysis and contingencies, the duality, e.g. the processual duality and interaction of human actions and structural context, was not acknowledged. Strategic marketing choices, including planning, decision and implementation procedures were predominantly made by autonomous marketing agents.

⁶⁸For a theoretical review see for example: Stein, J., *Strategy Formation and Managerial Agency*, The Economic Research Institute, Stockholm School of Economics, 1993. (Four principle views are described: the linear view, the adaptive view, the interpretive view, and the socio-cognitive view.)

⁶⁹The most influential being the marketing mix models in which step-wise design, planning and implementation models have a dominant position. This includes e.g. step-wise development, testing and launching of new products and step-wise identification, evaluation and selection of channels. See e.g. Kotler, P., *Marketing Management. Analysis, Planning, Implementation, and Control*, (eighth ed.) Englewood Cliffs: Prentice-Hall, 1994. These models connect strongly to marketing mix oriented channel management texts, as represented by Stern, L.W. and El-Ansary, A.I., *Marketing Channels*, Englewood Cliffs, N.J.: Prentice-Hall, 1992

⁷⁰See e.g. Howard, J.A., *Marketing Management. Operating, strategic, and administrative* (third ed.), Homewood Ill.: Richard D. Irwin, 1973, p.22 and Bagozzi, R.P., *Principles of Marketing Management*, New York: Macmillan Publishing Company, 1991, pp. 19-23

⁷¹See e.g. McCarthy, E.J and Perreault Jr., W.D. *Basic Marketing* (ninth ed.), Homewood Ill.: Richard D. Irwin, 1987

⁷²See e.g. Abell, D.F. and Hammond, J.S., *Strategic Market Planning. Problems and analytical approaches*, Englewood Cliffs, N.J.: Prentice-Hall, 1979, chapter 9.

⁷³Brownlie, D.T., *Putting the Management into Marketing Management* (chapter 2), in: Baker, M.(ed.), *Perspectives on Marketing Management*, Chichester: John Wiley, 1991, p.48

Much research in the 1970s and 80s shifted towards interactions, mutuality and long-term buyer-seller relationships in marketing dyads and networks, and the assumptions of human behaviour underlying the *linear view* were combined with new research findings which began to create a more openly divergent set of assumptions regarding the individual and collective marketing agents. Empirical findings in European industrial marketing research⁷⁴ during the 1970s and 80s indicated a stronger connection to alternative descriptions of human change behavior found in the organization and strategy literature: e.g. as muddling through,⁷⁵ disjointed incrementalism,⁷⁶ the adaptive mode⁷⁷ and the adaptive view.⁷⁸ The continuity of change processes and the stabilizing effects of ongoing processes of structuration in industrial networks connected this research more strongly to a view of individuals as interactive, mobilizing other actors for change through interactions in dyads and networks, and often within the realms of long-term relationships.⁷⁹

Marketing channel theories and change agency

When separating out the niche of marketing theory which is focused on marketing channel aspects it can be seen that aside from the problem that relatively little attention has been drawn towards the strategic, managerial and change related aspects of marketing channels, the majority of those models that have been presented rely on a very limited range of underlying conceptions of organizational change. At the end of the 1980s, one singular perspective still seemed to monopolise the marketing channel accounts of strategic change and change agency; the rational, linear phase or stage conceptions of change, with generalized, simplified change contents, divorced from any type of internal or external, organizational context. Alternative models of strategic and organizational change in marketing channel contexts were few and not highly influential.⁸⁰

Relating the dominating underlying views of change in marketing theory to Pettigrew's three interrelated dimensions of strategy, content, context and process, including dividing the context into inner and outer dimensions a bias towards a limited set of

⁷⁴See e.g. Håkansson, H.(ed.), *International Marketing and Purchasing of Industrial Goods - An Interaction Approach*, Chichester: Wiley, 1982, Ford, D.(ed.), *Understanding Business Markets - Interactions, Relationships, Networks*, London: Academic Press, 1990, Easton, G., "Industrial networks: a review", in Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 1-27, 1992

⁷⁵Lindblom, C.E., "The Science of Muddling Through", *Public Administration Review*, Vol.19, pp.79-88, 1959

⁷⁶Lindblom, C.E., *The Policy-Making Process*, Englewood Cliffs, N. J.: Prentice-Hall, 1968

⁷⁷Mintzberg, "Patterns in Strategy Formation", *Management Science*, Vol. 24, pp. 934-948, 1978

⁷⁸Chaffee, E.E., "Three Modes of Strategy", *The Academy of Management Review*, Vol.10, pp. 89-98, 1985

⁷⁹Hammarkvist, K-O, Håkansson, H. and Mattsson, L-G, *Marknadsföring för konkurrenskraft*, Malmö: Liber, 1982

⁸⁰Figure 2.1. places marketing channel theory in the context of other related theory and literature. The relationship to other areas is both in content, i.e direct influences on theory, and phenomena, i.e. the explicit and implicit study of change.

conceptualizations is revealed.⁸¹ Despite the obvious differences between the underlying transaction cost theory, industrial organization strategy models and managerial marketing mix models - all of which strongly influenced marketing channel research - they all carried with them conceptions of strategic content, context and process which showed apparent similarities. (At this point we should remind our reader that the above mentioned models are those which we consider to have had some of the widest impact on marketing channel research, but are not meant to be all inclusive.)

The generally divorced descriptions in marketing management theory between the three dimensions (content, context and process) of strategy formation and change seemed to be almost automatically transferred to managerial marketing channel models. The most important applied models and theories directed attention to the linkage between the content of strategic change and the characteristics of the (outer) context. Williamson's four basic types of strategic contents (representing the alternative control forms of market, bilateral control, trilateral control, and hierarchy, mainly in the "vertical" dimension) became connected to a number of chosen characteristics of the inner and outer context (e.g number of actors).⁸² In marketing channel research this predetermined, steady-state content-context linkage became transferred to, for example, studies of the use of independent or vertically integrated distributors, and to the study of channel choice modes in connection with foreign market entry.⁸³

Also the strategy literature derived from industrial organization theory and marketing mix strategy models emphasized the linkage between content and outer context. Porter's industrial organization derived strategic model - in which content was linked to three basic strategies (cost leadership, differentiation and focus) and context to the structure of industry competition, new entrants, suppliers, buyers and substitutes - connected indirectly to channel management literature by applying the same underlying definition of "industries", i.e external contexts.⁸⁴ Industrial organization derived ideas about strategic change and the content-context linkage appeared most explicitly in the channel

⁸¹ Building on a review by Mattsson (1992) in which international marketing and international business models are analyzed from a similar perspective, relating to Pettigrew's (1985, see list of references) three dimensions of strategic change. (In: Mattsson, L-G., *Marketing Perspectives and International Business*, paper prepared for the conference on "Perspectives on International Business: Theory, Research and Institutional Arrangements", University of South Carolina, May 21-23, 1992. Reprint: "Exchange Approaches and Marketing's Contribution to International Business Research", in: Toyne, B. and Nigh, D. (eds.), *International Business Inquiry: An Emerging Vision*, South Carolina: University of South Carolina Press, 1995-96 (forthcoming)

⁸² Williamson, O.E., *Markets and Hierarchies: Analysis and Antitrust Implications*, New York: The Free Press, 1975

⁸³ Anderson, E. and Coughlan, A.T., "International Market Entry and Expansion via Independent or Integrated Channels of Distribution", *Journal of Marketing*, 51 (1), pp. 71-82, January 1987

⁸⁴ Porter, M., *Competitive Advantage: Creating and Sustaining Superior Performance*, New York: Free Press, 1980

management literature in connection with considerations concerning cost-benefits of, and the choice or rejection of, vertical integration.⁸⁵

Marketing mix based ideas about strategic change also left their mark on channel management literature through their strong assumptions of the content-outer context linkage: through an analysis and segmentation of competitors and customers, manufacturers could best choose and implement marketing actions. Choosing among alternative channels was one important variable, and channel management literature even adopted complete models developed within the marketing mix based marketing management tradition.⁸⁶ Even more simplified models of strategic content were adopted in industrial marketing literature in channel discussions linking e.g "pull" vs "push" strategies to different structural characteristics of industrial contexts.⁸⁷

The process of marketing channel change became strongly associated with the linear, planning and goal directed, rational decision making and choice models of strategic action, represented by e.g Chandler and Ansoff.⁸⁸ Transaction cost theory with its static, steady-state conceptions did not encompass processual aspects of structures and structural change. Normative models for marketing channel change seldom questioned these underlying models. According to this norm of modelling, strategic content was seen as linked to the strategic process in a separate and definable step in the planning and choice procedure. The same rationalistic ideas about channel agency came to underpin models for achieving channel coordination, as represented by Stern and El-Ansary (Figure 2.1.).⁸⁹

Thus, the issue of a strategic content became closely connected to the planning and preparation stages of the strategic change processes in channel systems. The content was established and determined subsequent steps in the linear decision and choice procedure, according to the dominating linear process model conceptions. The generalized and fixed categories of strategic change content were strongly embodied in both the conceptions of the dominating industrial organization derived strategy literature and in the marketing mix based models for marketing management. Other important issues in relation to change contents, such as the anticipation of the means of implementation, sources of the strategy,

⁸⁵Stern, L.W. and El-Ansary, A.I., *Marketing Channels*, Englewood Cliffs: Prentice-Hall, 1988 (3rd ed.), 1992 (4th ed.)

⁸⁶See e.g. Kotler's (1971) decision making model for channel choice in Stern and El-Ansary 1992 (ibid).

⁸⁷Webster, Jr, F.E., *Industrial Marketing Strategy*, New York: John Wiley, pp.221-222, 1991

⁸⁸Chandler, A., *Strategy and Structure*, Cambridge, Mass.: The M.I.T. Press, 1962. Ansoff, H.I., *Corporate Strategy*, New York: McGraw-Hill, 1965

⁸⁹Adopted from third edition of Stern, L.W. and El-Ansary, A.I. (1988). A somewhat more elaborate model is introduced in the fourth edition, but still with the same underpinnings concerning channel agency and channel strategy formation processes. (In: Stern, L.W. and El-Ansary, A.I., *Marketing Channels*, Englewood Cliffs: Prentice-Hall, 1988 (3rd ed.), 1992 (4th ed.)

and (different) central objectives were less strongly embedded in dominating change models.⁹⁰ The contents of typically "new" situations, e.g new market entry, new channel choice and new channel design, came to dominate normative channel modelling.

Steps in the channel planning process:

Step 1. Analyze End-User Needs for Service Outputs

Step 2. Establish Channel Objectives in Terms of Delivering Service Outputs

Step 3. Set Channel Strategy in Terms of (a) Coverage, (b) Exposure, and (c) Support Required from the Channel

Step 4. Select Appropriate Channel from Available Alternatives

Steps in the coordinative process:

Step 1. Determine Service Output Levels Desired by End-Users

Step 2. Delineate the Roles Channel Members Must Assume to Ensure Delivery of the Required Service Outputs

Step 3. Use Economic and Social Power to Motivate Channel Members to Perform Their Assigned Roles

Step 4. Establish Mechanisms for Dealing with Conflicts That Occur within the Channel

Figure 2.1. Channel planning: strategy and design, and mechanisms for achieving channel coordination. From Stern & El-Ansary, (3rd ed., chapters 5-6), 1988

Successively, marketing channel models developed more elaborate views of the outer context. Within the Political Economy Approach,⁹¹ for example, the normal manner of treating everything external to customers and competitors as collective residuals or diffuse environmental "forces" was complemented with a model of the context more similar to that of industrial organization strategy literature. However, descriptions of major parts of the outer context remained unimportant, highly typified and generalized, and were mainly unconnected to strategic content and strategic processes. Comprehensive channel theories and change models also remained remarkably reluctant to include inner, organizational contextual issues and attributes in their treatment of distribution system operations. In the shift towards dyadic interactions and relationships in marketing channels, some of the internal, intra-organizational, aspects of channel operations seem to have been lost. The implicit assumption inherited from dominating marketing management models i.e. that general marketing and channel issues were matters for the "marketing function", perhaps even a specific "marketing department", remained. The internal, organizational context was sometimes even more distant than the external context, and the links to strategic change content and processes were not addressed as central issues in marketing channel literature.

⁹⁰Whipp, R., Rosenfeld, R. and Pettigrew, A.(1987) present these three and a fourth, the normative, dominating frames of thought connected to "contents", as central issues related to this dimension of strategic change.(Whipp, R., Rosenfeld, R. and Pettigrew, A., "Understanding Strategic Change Processes: Some Preliminary British Findings", in: Pettigrew, A.(ed.), *The Management of Strategic Change*, Oxford: Basil Blackwell, 1987, pp.561-585)

⁹¹Stern, L.W. and Reve, T., "Distribution Channels as Political Economies: A Framework for Comparative Analysis", *Journal of Marketing*, Vol.44, Summer 1980, pp. 52-64, Arndt, J., "The Political Economy of Marketing Systems: Reviving the Institutional Approach", *Journal of Macromarketing*, Fall 1981, and Achrol, R.S., Reve, T., and Stern, L.W., "The Environment of Marketing Channel Dyads: A Framework for Comparative Analysis", *Journal of Marketing*, Vol.47 (Fall), 1983, pp. 55-67

With few exceptions,⁹² marketing channel researchers did not attempt to discuss the triangular linkages between strategic contents, strategic processes, and inner and outer contexts.⁹³ In models where channel change came in focus, the prime aim was not to reach an in-depth understanding of change in marketing systems. They were generalized models for introducing almost any arbitrary, step-wise change in any marketing system or vertical channel context. Consequently, the only guide-lines for understanding accounts of marketing change in the literature were the views that the implicit, underlying models provided. Over time, the implicit theories of actions, i.e. the how of strategic change and the connections to the what, why, where, and when of these actions, remained stable in the major part of managerial marketing and channel literature.

EMERGING PERSPECTIVES OF SOCIAL AND ORGANIZATIONAL CHANGE

Leaving some of marketing and distribution theories' micro-economic heritage and taking a step into the contemporary ontology and ontological developments in sociology, we find proponents who suggest a development of sociological thought about systems and change similar to that depicted in table 2.1. With the help of sociology, industrial network theory and organization theory, we refine our theoretical focus, building a platform for approaching change processes in industrial marketing organizations.

In a review of the sociology of social change, Sztompka summarizes the development of ideas on macro sociological change, pointing to the evolving emphasis on an historical dimension and the emergence of historical sociology with a set of new ontological assumptions about change.⁹⁴ Six emerging ontological assumptions in sociological thinking are identified, all of which show similarities with some depicted as emerging in marketing theory.

Firstly, sociological thinking now sees reality not as a steady state, but as a dynamic process. It consists of events and not objects, and it occurs rather than exists. In contrast to the bulk of marketing management literature, with its non-explicit time accounts, sociological thinking thus regards the inclusion of time and temporality as an immanent, internal and explicit factor of social life:

⁹²Urban, D.J., "Organizational Development: A New Direction For Marketing Channel Research", *European Journal of Marketing*, Vol. 23 No. 6, 1988, pp. 38-54

⁹³Elaborated on in: Pettigrew, A., *The Awakening Giant - Continuity and Change in ICI*, Oxford: Basil Blackwell, 1985

⁹⁴Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, pp.211-212

What happens, how it happens, what results it brings about - all are taken to depend essentially on the time when it happens, the location in the processual sequence, the place in the rhythm of events characteristic for a given process.

Not only the properties and traits of phenomena, but their regularities are now treated as time-dependent. Therefore, a study of marketing change would need to make explicit temporal dimensions and accept them as fundamental to the understanding of change.

Secondly, an emerging foundation of historical sociology is the acceptance of sociological change as:

...a confluence of multiple processes with various vectors, partly overlapping, partly convergent and partly divergent, mutually supportive or destructive.

Thus, inherent in social processes of becoming is the fact that multidimensional and multidirectional processes connect and overlap. An acceptance of this ontological assumption would require not only the inclusion of several processes - be they social, technological or economic - but also the integration of different processes when studying change in a marketing context. We can expect marketing change agents to be positioned and to act in the crosspoints of several, ongoing and interconnected, multidimensional and multidirectional, change processes.

Thirdly, systemic conceptions and views of processes of change are interdependent. The direction of sociological thinking points towards the acceptance of society not as an object, system or entity, but:

...rather as a fluid network of relations, pervaded with tension as well as harmony, conflict as well as co-operation.

In accordance with the development of European marketing and network research, much marketing thinking has also been moving towards this basic ontological assumption.⁹⁵

Fourthly, the historical coefficient of the new emerging ontological assumptions in sociological thinking is becoming more apparent. Sequences of events are seen as cumulative:

Each phase of the process is seen as an accumulated outcome, effect, crystallization, point of arrival of all preceding phases, and at the same time the germ, embedded potential, point of departure for the succeeding process. At each historical moment there opens up a determinate field

⁹⁵Easton (1992) states, for example: "Change is a central feature of much of that is written about industrial networks. Networks are concerned with relationships and these cannot be conceived of in anything but dynamic terms. It is hardly surprising that the processes by which networks function have been a major preoccupation of workers in the field." (In: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, 1992, pp.21-22)

of opportunities, possibilities, options for the future course of the process, significantly delimited by the whole past course of the process.

Apart from the necessity to include explicit accounts of temporal dimensions, studies of marketing change should embrace the assumption that change rests on explicit, historical accounting systems.⁹⁶ Also in marketing, researchers have in the 1980s drawn attention to historical research:⁹⁷

Marketing history can show meaningful interconnections and parallels among different events. Its role will be to isolate and illustrate the changes that marketing and its respective institutions have made, the factors which have been influential in effecting change, and the consequences of change. Though some scholars might choose to study the history of a firm or a single practice, greater value will come from studying marketing's role in the broader economic and social context. The history of specific events has value in itself but even more value when placed within the larger framework.

Fifthly, every change process and the social reality is more openly seen as constructed and created by human agents, individual and collective. This necessitates the explicit treatment of human change agents, bringing in humans and their actions into the contexts under scrutiny. This means leaving behind the often strong *implicit* assumptions of change provided in some macro sciences as appearing in a world *sui generis*, above the heads of the men and women shaping the social systems. This means that the visibility of marketing actions by visible change agents need to be embraced as fundamental to the understanding of marketing change processes.

Lastly, despite the fact that human agents construct their reality and create change, they do it within given structural conditions:

It follows that there is a dialectics of actions and structures, in which actions are partly determined by earlier structures, and later structures are produced by earlier actions.

Adhering to this assumption, when probing into the processes of marketing change it is necessary to bring together and start from the notion that marketing actions - the processes and contents - are dialectically interconnected with structures, i.e with the

⁹⁶Lundgren (1991), states in his industrial network study about the fact that "history matters": "The notion that dynamic processes - technological change, economic growth, social progress or whatever, are path-dependent conveys the necessity of historical perspective. Current events cannot be fully understood without knowledge of how they have been shaped by past events..."(In: Lundgren, A., *Technological Innovation and Industrial Evolution - The Emergence of Industrial Networks*, Stockholm: EFI, 1991, p.71)

⁹⁷Savitt, R. "Historical research in marketing", *Journal of Marketing*, Vol. 44, pp. 52-58, Fall 1980, p.57. Savitt also claimed that historical research in marketing would offer opportunities for "charting our past and better understanding of our present". But he also asked: "Will historical research in marketing continue to be undertaken mainly by non marketing scholars? The question arises because marketing scholars have given little attention to this part of the discipline.....Among the reasons advanced for the absence of historical research in marketing are the lack of appreciation of its importance and the lack of method. Historical study adds quality to a discipline. It enables scholars within the discipline, as well as society at large, to gain an understanding of its origins and its patterns of change."(p.52) Savitt pointed to the importance of introducing the historical perspective with its emphasis on thorough description and the narration of events in a time sequence (p.53). His criticism and discussion ended in a defence of a historical-contextual approach to marketing and marketing change processes.

dynamic, moving - fluid - network context. In line with this, it also means leaving the old dichotomies of stability and change in marketing contexts, in favor of a dialectical, interdependent view of the two.

In a similar vein, the sociologist Hernes suggested that a theory of structural change should meet a number of different desiderata.⁹⁸ Referring to Hernes, Astley and Van de Ven concluded that a theory of change would articulate and explain movements in part-whole concepts of structure and personnel actions over time.⁹⁹ This meant also that research should not overlook the reality of dialectical problems and "tensions" which are a normal and an inherent part of collective behaviour. The suggestion made by Commons of the importance to adopt a processual, dialectical perspective of part-whole relationships in economic systems is thus taken to an organizational context.¹⁰⁰ Focus on part-whole relations in concrete organizational systems would help avoid the fallacy of falling into the micro-macro trap, i.e. trying to unravel the dynamic connections between micro level marketing phenomena and changes on the aggregated systemic macro marketing level.

INTERDEPENDENCIES BETWEEN STABILITY AND CHANGE IN MARKETING SYSTEMS

March suggested in his Footnotes to Organizational Change that a dialectical approach to organizational change should be adopted:¹⁰¹

Changes in organizations depend on a few stable processes. Theories of change emphasize either the stability of the processes or the changes they produce, but a serious understanding of organizations requires attention to both.

Continuing his and Richard Cyert's work on the behaviour of the firm, suggesting alternatives to economists' rationalistic view of decision and choice in organizations, March described organizational change as connected to ambiguity, interplay between (local) rationality and foolishness, and loose coupling.¹⁰² He emphasized the various

⁹⁸Hernes (1976) explicitly mentions four such central desiderata: 1) Explain both statics and dynamics of organizational functioning by including factors that explain both stability and instability, 2) Identify and explain the sources of change from both within the organization and outside the organization, 3) Include macro and microfactors and show reciprocal relations among them. Part-whole relations are basic to any basic understanding of "me-we" or self versus collective orientations and tensions, 4) Include time or an historical accounting system that explains the lead and lag effects of changes in micro and macroorganizational characteristics. (In: Hernes, G., "Structural Change in Social Processes", *American Journal of Sociology*, Vol. 82, November, 1976, pp.513-545)

⁹⁹Van de Ven, A. H. and Astley G.W., "Mapping the Field to Create a Dynamic Perspective on Organization Design and Behavior", in *Perspectives on Organization Design and Behavior*, New York: Wiley & Son, 1981, pp. 427-468

¹⁰⁰Commons, J.R., *The Economics of Collective Action*, Madison: University of Wisconsin Press, 1950

¹⁰¹March, J.G., "Footnotes to Organizational Change", *Administrative Science Quarterly*, 26, 1981, pp. 563-577

¹⁰²March, J.G., *Decisions and Organizations*, Oxford: Basil Blackwell, 1988

forms of ambiguity, anomalies, and surprising outcomes of prosaic processes that would have to be accepted as an inherent characteristic of organizations when approaching change. In line with the development in sociological thinking, March also suggested in his footnotes to organizational change that organizations should be viewed as "continually changing, routinely, easily and responsively".¹⁰³ The stable processes of change were assumed to require change agents to direct attention to partly different strategic tasks; leadership depended on being able to time small interventions so that the force of natural organizational processes amplified the interventions.

The importance for understanding marketing change processes of recognizing the minor successive modifications in organizational networks were increasingly being stressed also in marketing research.¹⁰⁴ It was suggested by Gadde and Mattsson that when approaching change it was necessary to leave the often positive evaluations made of it.¹⁰⁵ The study of change in marketing systems should leave the assumptions that the deliberate introduction of change would be tightly connected to improved performance; on the contrary, change could most probably be linked to problems and in the short run stability would be the most important determinant of performance. In a similar vein, March argued that organizations' ability to frustrate arbitrary intentions should not be confused with rigidity, nor should flexibility be confused with organizational effectiveness.¹⁰⁶

No matter how the problem of understanding organizational change is approached - and coming here to the specifics of marketing organization changes - change and stability become inseparable. The apparent opposites have a vital need for each other. Hence, the question how an industrial manufacturer reorganizes its marketing operations in a moving, structural context mirrors a number of questions concerning stability: How does an industrial manufacturer intervene in the stable routines, interactions and relationships of the marketing organization? How does the manufacturer stabilize the change process and implement new stable structures? In one sense the contraries are complementary and cooperative, in another they are mutually destructive or exclusive. The basis of transformation of marketing organizations is the acceptance of the whole with its stable and changing, positive and negative aspects.

¹⁰³March (1988), *ibid*, p.167

¹⁰⁴Gadde, L-E, *Evolution Processes in Distribution Networks*, paper presented at the 7th IMP Conference, Uppsala, September 6-8, 1991, Gadde, L-E. and Mattsson, L-G., *Analyzing Dynamics in Distribution, A Network Approach*, paper presented at the 9th IMP Conference, Bath, September 1993

¹⁰⁵Gadde and Mattsson (1993), *ibid*, p.21

¹⁰⁶March, J.G., *Decisions and Organizations*, Oxford: Basil Blackwell, 1988, p.167-186

A large part of the exchanges between industrial actors in the continually changing industrial networks takes place within the realms of long-term, stable relationships.¹⁰⁷ Technological, administrative, social, temporal and knowledge bonds emerge as industrial actors interact and relationships are established, with mutual trust as an important glue binding actors together.¹⁰⁸ In industrial networks, like depicted in the social exchange literature, stable structures emerge while e.g. exchanges of valued resources create patterns of differentiation which become integrated into relatively stable networks.¹⁰⁹ Industrial networks are also, like described by Giddens, subject to *structuration processes*, whereby stable structures are formed through norms which order and structure interactions, through predictable routines and routinization, and through the ordering of interactions in time and space.¹¹⁰ A study of industrial marketing change would have to acknowledge the fact that change takes place in networks of stable, structured interactions and relationships. Various types of bonds, resource exchanges, norms, routines, and temporal and spatial structuration are important elements of the context where marketing change takes place.

Stability in industrial marketing systems can thus be approached from a processual point of view. In March' terms, there are "stable processes of change" in and between organizations, caused by stable procedures for responding to economic, social and political contexts.¹¹¹ Change becomes a matter of building on these stable, routine processes of change, timing small interventions and redirecting somewhat the paths of these stable processes.

In a similar vein, Braudel argued for a deeper concern for the long time span in historical research in the social sciences; the very slow flow of change which borders on the motionless:¹¹²

For nothing is more important, nothing comes closer to the crux of social reality than this living, intimate, infinitely repeated opposition between the instant of time and that time which flows only slowly.

¹⁰⁷Håkansson, H.(ed.), *International Marketing and Purchasing of Industrial Goods - An Interaction Approach*, Chichester: John Wiley & Sons, 1982

¹⁰⁸Hammarkvist, K-O, Håkansson, H. and Mattsson, L-G., *Marknadsföring för konkurrenskraft*, Malmö: Liber Förlag, 1982, Ford, D.(ed.), *Understanding Business Markets - Interactions, Relationships, Networks*, London: Academic Press, 1990

¹⁰⁹Emerson, R., "Power-dependence relations", *American Sociological Review*, 27(1), 1962, pp.31-41, Blau, *Exchange and Power in Social Life*, New York: Wiley, 1964, Emerson, R., "Toward a theory of value in social exchange", (in: Cook, K.S.(ed.), *Social Exchange Theory*, Beverly Hills, 1976)

¹¹⁰Giddens, A., *The Constitution of Society: Outline of the Theory of Structuration*, Berkeley, CA: University of California Press, 1984

¹¹¹March, J.G., "Footnotes to Organizational Change", *Administrative Science Quarterly*, 26, 1981, pp. 563-577

¹¹²Braudel, "History and the Social Sciences. The Longue Durée.", *Annales E.S.C.*, No. 4 (October-December), 1958, pp.725-753

Like March within the sphere of organization science, Braudel argued that history and the social sciences had been captivated with change as the history of events, and most often the great and dramatic events:¹¹³

Its delusive smoke fills the minds of its contemporaries, but it does not last, and its flame can scarcely ever be discerned.

In a similar way, March argued that:¹¹⁴

Because of the magnitude of some changes in organizations we are inclined to look for comparably dramatic explanations for change, but the search for drama may often be a mistake. Most change in organizations results neither from extraordinary organizational processes or forces, nor from uncommon imagination, persistence or skill, but from relatively stable, routine processes that relate organizations to their environments.

Marketing organizations also go through periods of rapid and comprehensive change, drawing the attention of many people in the organization. However, these periods should be seen in relation to the stable processes of barely observable change which over long time spans transform the organizations. Building on marxist conceptualizations, modern concepts of revolutionary change have come to embrace the notion of fundamental change when epochs are closed and new ones are opened. The distinction between quantum (revolutionary) and evolutionary changes has also reached the organization and strategy literature.¹¹⁵ There are peaks of change in the history of organizations when many elements of the stable structure and ideology are transformed.¹¹⁶ However as argued by Pettigrew, most authors less precisely:¹¹⁷

...develop a process theory which links together the periods of high levels of change activity and low levels of change activity and thus begins to explain the timing and relative intensity of those periods.

Strategic marketing changes take place in industrial networks pervaded with processual continuity and structural stability. The connections between change and stability have to be put in relation to time spans; from the very short to the very long time span. Introducing a major change will always mirror interventions in existing stability and continuity in the marketing organization. Temporality makes the interdependence between stability and change multifaceted.

¹¹³Braudel (1958), *ibid*

¹¹⁴March, J.G., "Footnotes to Organizational Change", *Administrative Science Quarterly*, 26, pp. 563-577 1981, p.564

¹¹⁵See e.g. Pettigrew, A.M., *The Awakening Giant - Continuity and Change in ICI*, Oxford: Basil Blackwell, 1985, pp.444-453

¹¹⁶Miller, D., "Evolution and Revolution: A Quantum View of Structural Change in Organizations", *Journal of Management Studies*, 19(2), 1982, pp. 131-151, Brunsson, N., "The Irrationality of Action and Action Rationality: Decisions, Ideologies and Organizational Action", *Journal of Management Studies*, 19(1), 1982, pp.29-44

¹¹⁷Pettigrew, A.M., *The Awakening Giant - Continuity and Change in ICI*, Oxford: Basil Blackwell, 1985, p.446

PERSEPECTIVES OF CHANGE

Pulling together some of the influential conceptions of organizational and social change leads to an exposition of a set of viewpoints for approaching change in marketing organizations. These factors can be summed up, providing some general thought patterns for approaching the processes of change in marketing organizations, and the processual marketing change agency-marketing system structure interplay:

*Regarding the *focus* for studying change, attention should be drawn to the tensions created in marketing systems in changing part-whole relationships. Both forces internal and external to a particular organization or system can be the origin of change, as can be the ambiguities connected to different perceptions of inside-outside definitions. Both complementary and contradictory forces appear in the crosspoints between multiple and multidirectional change processes at different levels in systems. Inquiry into change should be directed at how individual and collective action and structure interact in these changing part-whole and inside-outside relationships unfolding over time. Change actions are produced by enacting individual and collective change agents; an important link to understanding change is the dialectic relationship between actions and structure. Change studies necessitate a focus on concrete accounts of timed and localized industrial marketing change produced by identifiable actors.

*As regards the *systemic perspective*, an image of a continually changing organizational system, will need to adopt a less rigid system conceptualization, accepting that organizations and systems can also be perceived as an ever changing, network of ties, relationships and bonds between individuals, groups, organizations and nets of organizations. Such a system - network - is constantly contracting, expanding, and regrouping into new constellations.¹¹⁸ Within these fluctuating network configurations there is both constant change and aspects of stability and continuity. It would also mean an acceptance of the fact that organizations - and other "actors" - are morphogenetic.¹¹⁹ That is, organizations are constantly transformed and redefined, often in response to their own actions. There are feedbacks from the actions back to the actor or system, redefining itself in the course of the change process.

*Hence, the acceptance of a fluid, moving network context for approaching change, also implies that what can be expected is that a certain degree of *contradictions*,¹²⁰ *tensions*,¹²¹ and *ambiguity*,¹²² is an

¹¹⁸Sztompka (1993) argues that: "What really exists are constant processes of grouping and regrouping, rather than stable entities called groups; there are processes of organizing and reorganizing rather than stable organizations" (In: Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, p.9)

¹¹⁹Buckley, W., *Sociology and Modern Systems Theory*, Englewood Cliffs: Prentice Hall, 1967

¹²⁰Benson, K.J., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, March 1977, pp. 1-21, and Zeitz, G., "Interorganizational Dialectics", *Administrative Science Quarterly*, Vol.25, March 1980, pp. 72-88

inherent part of the systems. It can be expected that the ambiguities and contradictions surrounding the people, groups and organizations acting to change the present order are not only part of the emerging context, they are also important origins and driving forces for actors to cope with and change the present order of things.

*As to the *characteristics* of change, the basis of transformations should be the acceptance of change as inextricably interdependent with forces of stability. Stability and change are connected as well as opposed, and always interdependent. Furthermore, there are the long-term processes of stable change, which border on the motionless, but forming the important context for the short-term, sometimes dramatic events of rapid change. Sometimes these short-term events are outbursts of radical change, transforming structures, norms, ideologies and ongoing processes, causing a peak of change. In other cases, the events can in a short-term perspective appear as radical, but leave only minor marks on the development of the organization.

*A study of organizational and operational change in marketing organizations needs to make visible various *temporal dimensions*. There is a need for a historical accounting system, accepting the notion that change is partly cumulative. Present changes build on changes and events of prior periods. In both a short- and a long-term perspective, there are lead and lag effects of prior and present change processes. There is a need to make these temporal dimensions chosen an inherent and explicit part of the context of the change processes, not just a descriptive background.

Despite the fact that many ontological assumptions of change in the social and organizational literature point in the same directions, we are still left with an important problem. If marketing organization conceptualizations are to be linked to the assumptions depicted, it is also necessary - at least initially - to leave behind some of the myths, the too narrow and simplified pictures of the marketing reality that is approached. Contemporary assumptions of change and of social reality depict an ambiguous, complex, continuously changing and morphogenetic reality encompassing a multitude of interpenetrating, multidirectional change processes. Once accepted as part of the reality, an important step towards abstraction and simplification is the choice of path for probing deeper into this multifaceted reality.

¹²¹Van de Ven, A. H. and Astley G.W., "Mapping the Field to Create a Dynamic Perspective on Organization Design and Behavior", in *Perspectives on Organization Design and Behavior*, New York: Wiley & Son, 1981, pp. 427-468

¹²²March, J.G., *Decisions and Organizations*, Oxford: Blackwell, 1988

CONCLUSIONS AND BEARINGS

The depicted, emerging views on change form an ontology of the nature of change in marketing organizations. The ideas and thought patterns depicted serve, with different emphasis, as framework for our longitudinal case study of industrial marketing change processes in Pharmacia Biotech. Hopefully the purpose of the introduction on ongoing changes in the directions of marketing research, and of the changing conceptualizations of marketing change will now have been disclosed. What has been presented in the preceding sections does not represent the conclusions of some simplified genealogies of the history of marketing and distribution research.¹²³ They contain an argumentation which seeks to bring forth and enlighten some of the historical paths of ideas and conceptions of marketing system change, in order to better understand contemporary views and to see how these can be refined and maybe complemented. Next, we shall be concerned with both a backward link - to the depicted directions of theoretical development in marketing - and a link forward to a more focused and conceptual discussion, adopting details on change as presented in e.g. industrial network models, sociology, organization theory and in strategic management theory, and building on the empirical insights from our case study. As we go along, a number of ideas, concepts, theoretical desiderata and ontological underpinnings for approaching and studying marketing network change processes will crystallize more clearly. With these to support and direct our interest, we then move into a discussion of change in our focal company, Pharmacia Biotech.

¹²³In accordance with Sztompka's (1993) introductory discussion of macrosociological theories.(In: Sztompka, P.,*The Sociology of Social Change*, Oxford: Blackwell, 1993, Preface)

3 Views on Industrial Marketing Change Processes

In depicting industrial marketing and distribution operations and organizations as part of a dynamic and changing reality, we are left with a complex and intriguing problem: viewing industrial marketing through the lenses of an inherently dynamic and continuously changing industrial reality, how do we describe how companies change their situations in this ever changing context? When approaching the managerial aspects of redirecting and changing marketing and distribution strategy, embracing all of its organizational complexity, we need for a framework. One that encompasses the fact that managerial aspects of "strategic", large-scale shifts in marketing organizations and in underlying ideas and norms, cannot be separated from the moving network context in which they emerge, develop and change. Depicting and understanding - in dynamic terms - the long-term, processual relationship between industrial marketing agency and the moving industrial marketing context requires closing the gap between industrial marketing action and structure within the framework of a processual network perspective.

A complex story and analysis like that of Pharmacia Biotech requires such a structure and framework. The fact that the story of Pharmacia Biotech can be said to contain not a singular story, but a number of interconnected, complex stories, does not contradict the fact that it has a perspective. The story could not be told without one. As stated by Pettigrew:¹

And there is the problem of perspective. Where we sit not only influences where we stand, but also what we see. No observer of life or form begins with his mind in a blank, to be gradually filled by evidence. Time itself sets a frame of reference for what changes are seen and how those changes are explained. The more we look at present-day events the easier it is to identify change; the longer we stay with an emergent process and the further back we go to disentangle its origins, the more we can identify continuities. Empirically and theoretically, change and continuity need one another,....

¹Pettigrew, A., *The Awakening Giant - Continuity and Change in ICI*, Oxford: Blackwell, 1985, p.1

Like the history of Pharmacia Biotech is not a singular story, the theoretical and analytical framework presented in this study has not been built on a singular theory, but links theoretical ideas from several social science areas. We cannot start with a blank mind, but need some thought-patterns, theories, ontologies, ideas or models to guide us. And the multifaceted and "fluid" characteristics of change processes in general renders it difficult to capture all of its complexity in one single, coherent model:²

Beware of the myth of the singular theory of social or organizational change. Look for continuity and change, patterns and idiosyncracies, the actions of individuals and groups, the role of contexts and structures, and the processes of structuring. Give history and social processes the chance to reveal their untidiness.

Hence, we approach the dynamic, industrial marketing change processes from different perspectives, and allow for a variety and mixture of explanatory devices to guide us and help us to explore and identify patterns in this complex reality. If we cannot embrace it all at once we need to break it down into parts, in order to put it all together again, bearing in mind that the whole might turn out different from that from which we started. The ontological assumptions and suggestions concerning desiderata for a theory on strategic and organizational change, coupled with empirical insights and some chosen theories, will help us lay out guide-lines for our exploration.

We will address: 1) characteristics of the moving context in which marketing change episodes are embedded; 2) general characteristics surrounding marketing change agency; 3) characteristics of the marketing change episodes and of a major marketing reorganization; and 4) various selected time elements connected to the moving context, the change episodes and to the change agents. In the fifth section, we will also employ three temporal perspectives in approaching our focal problem, the processual interplay between the marketing change episodes and their change agents, and the structures of the moving network context in which they are embedded.

MARKETING CHANGE EPISODES IN A MOVING CONTEXT

How does a marketing change process emerge and develop in its moving context? The question stated at the beginning signalled the perspective chosen: industrial marketing changes like any actions in social systems are embedded in incessantly emerging social systems. Industrial marketing changes, the actions of industrial marketing agents, are fused with their structural circumstances, circumstances which constantly change. Building on the assumption that the actions of individuals and collectivities are the central

²Pettigrew (1985), *ibid*, p.1

motor of all change in industrial marketing systems, these must be put into the processes of constantly transforming structures. How do change agents behave in these circumstances, i.e. how do they relate to the changing structures in which their actions are embedded? Judging from the previous discussions and building from our case study we arrive at a dynamic perspective on the systems, the actors and the interdependent actions of the actors/change agents.³

Firstly, the industrial marketing system is in constant endogeneous change; the structure of the network is transformed by its own actions - the industrial marketing system is "self-transforming". Secondly - and important for the understanding of this study with its chosen actor rather than corporate network perspective - the industrial change agent/the actor is also reshaped by its own actions in the process of changing, interacting with and elaborating the industrial marketing system structure. The industrial actor/agent is "morphogenetic".⁴ Thirdly, the placement of the dialectics of industrial change agent-industrial system structure in a temporal, processual perspective, makes also the contents and processes of the strategic changes dynamic, both stable and changing. What is changed and how it is changed alters over time, as a consequence of the fact that the dialectical interaction between industrial change agents and industrial system structures are positioned in time. The stable and changing industrial marketing change contents and processes reflect connections to the past, the present and the future. Lastly, multiple interacting changes lead to changes in industrial marketing systems. These interacting processes - more or less aimed at the core of the marketing and distribution activities - are both contradictory and complementary. Every action is bounded - by the moving structures and the concurrent actions of agents in other ongoing change episodes - but is also open to many options.

How does an industrial company reorganize its marketing and distribution operations, given these prerequisites? The question implicitly relates to a central problem in sociological research, the question how these social systems change over time, manifested in the relationship between agents and the structures they are embedded in. The answer to the riddle of change is to be looked for at the interface between agency and

³Sztompka (1993) about views on "agency" emerging in sociological thinking during the 1980s: "...In effect social reality has started to be perceived with a sort of agential coefficient. I propose to define this concept, summarizing the legacy of the theories of the agency, as the set of six ontological assumptions: (1) that society is a process and undergoes constant change; (2) that the change is mostly endogeneous, taking the form of self-transformation; (3) that the ultimate motor of change is the agential power of human individuals and social collectivities; (4) that the direction, goals and speed of change are contestable among multiple agents, and become the area of conflicts and struggles; (5) that action occurs in the context of encountered structures, which it shapes in its turn, resulting in the dual quality of structures (as both shaping and shaped) and dual quality actors of (as both producers and products); and (6) that the interchange of action and structure occurs in time, by means of alternating phases of agential creativeness and structural determination." (In: Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, p.200)

⁴In accordance with Archer, M., *The morphogenesis of social agency*, SCASSS, Uppsala, 1989, p.33, (also commented by Sztompka, 1993, *ibid*, p.200)

structure, given the temporal, historical, processual perspective.⁵ But, "without the proper incorporation of time the problem of structure and agency will never be satisfactorily resolved".⁶

In these assumptions of the central focus area for understanding change in social systems, history and sociology meet.⁷ Here, we synthesize these basic assumptions of the agency-structure interface and the temporal perspective with our particular area of consideration; industrial marketing and distribution changes.

Marketing change episodes and radical change

Every marketing reorganization results from collective actions to change the present situation. Every single change actor has intentions, but the collective resulting outcome of the change can not be expected to be intended by any single actor.⁸ Every marketing change agent - be it an individual, a group or task force, a division, company or group of collaborating companies - has only limited power to change its specific local context. The redirection of marketing and distribution operations in large industrial organizations is never the task of any single group or actor. Different "interest groups" form in organizations around particular objectives, responsibilities, and intentions of functions or business areas, and they also form around differences between groups at varying hierarchical levels.⁹ A key part of a major change of marketing and distribution activities in a large industrial organization will be the competing and complementary processes of different interest groups. Tensions will emerge as a consequence of the fact that the differing interests and rationalities of the interest groups become part of political processes.¹⁰ Interest groups are likely to have different goals, time orientations, values and problem-solving styles. The development of major marketing reorganizations will also be connected to the fact that different interest groups' awareness of its own impact on change and of other groups' change actions can be limited:¹¹

There is of course, a considerable difference between awareness by an interest group of the impact of change on their position and their ability to translate the heightened awareness into effective action. Consciousness of the implications of a change may have to be tied not only to the

⁵Sztompka(1993): "It is here, at the "interface" between structures and agents, operations and actions, that the riddle of social becoming must be traced.", *ibid*, p.215. (Adhering to the reasoning in: Archer, M., *Culture and Agency*, Cambridge: Cambridge University Press, 1988).

⁶Sztompka (1993), *ibid*, p.215

⁷Giddens (1979): "...with the recovery of temporality as integral to social theory, sociology and history become methodologically indistinguishable", (In: Giddens, A., *Central Problems in Social Theory*, Macmillan, London, 1979, p.8)

⁸Giddens, A., *The Constitution of Society*, Polity Press, Cambridge, 1984

⁹Pettigrew, A., *The Awakening Giant - Continuity and Change in ICI*, Oxford: Blackwell, 1985, p. 42.

¹⁰Pettigrew (1985):"In short, they may have different rationalities, which provide the motive forces for their actions and reactions...strategy formulation and change processes in organizations may be understood in part as the outcome of processes of competition between these rationalities."(*ibid*, pp. 42-43).

¹¹Pettigrew (1985), *ibid*, pp. 43-44

awareness that the interest has of its own potential power resources, but also to the tactical manner with which those resources are used.

A radical marketing reorganization will be one that while evolving is perceived by the change agents as intervening in many stable structures and traditions in the marketing organization. The marketing change process can be strategic in the sense that it has intentional elements and are (intersubjectively) acknowledged as being major or fundamental interventions in stable structures rather than incremental and small-scale.¹²

..strategic changes are viewed as streams of activity involving at various times the differential attention of individuals and groups, which occur mainly but not solely as a consequence of environmental change, and which can lead to alterations in the product market focus, structure, technology, and culture of the host organization. Strategic is just a description of magnitude of change in, for example, structure and organizational culture, recognizing the second-order effects, or multiple consequences of any such changes.

A radical marketing change in a large industrial organization will be connected to several different emerging *change episodes*, forming around limited parts of the marketing system. Different change actors, "interest groups", form around particular activities, resources, actors, interactions, and particular change objectives and rationalities for the change processes. Every marketing change episode competes with and coexists with other ongoing change episodes in the organization, not directly aimed at the marketing and distribution activities. Different change episodes - encompassing sequences of events sometimes emerging around some specified change project¹³ - combine to redirect the existing organizational and operational marketing structure. And every change episode is truly morphogenetic. That is, the characteristics of change episodes, be it the contents, the processes or the different change rationalities connected to the episodes, are successively transformed, as a consequence of the interest group's own actions and in the interactions with other change episodes.

Hence, a major reorientation of industrial marketing operations will here be seen as the joint outcome of several interacting change episodes with different intentions. From time to time, these interventions and reorientations complement the stable ongoing processes of incremental change that slowly transform the structure and operations of the marketing

¹²Pettigrew (1985), *ibid*, p.438

¹³The terms "change project" and "change episode" overlap, but cannot be used interchangeably. A change episode *can* (but need not) start as one or several defined projects, but in the course of the change process projects can be transformed. For example, in the Pharmacia Biotech case, a logistics and physical distribution change starts as a project, develops into an institutionalised programme, and emerges towards the end of the case as an "actor", i.e a new distribution function/division in the company. Thus, the concept "change episode" allows for an open, morphogenetic definition and conception of specific, focal changes. It is used instead of "event" in order to reduce the risk of misinterpretation. "Event" often encompasses only the meaning of "happening", usually only an important or unusual one (see Longman Dictionary of Contemporary English), i.e giving the connotation of "great event" within a fairly limited period of time. Here, "change episodes" can encompass such great events, but it is intended to encompass also the *successively emerging, changing and dissolving* nature of particular changes. (The particularity separates it also from the too broad and general term "process")

systems. A radical marketing change is an intervention of a certain magnitude, a major upsetting and reorganization of marketing activities, resources, actor structures and interactions between actors.¹⁴ These intersubjectively acknowledged radical marketing changes also touch the core of established *norms* of the interactions between actors; the ideas, interpretations and expectations about interactions and about different actors' rights and duties in the marketing organization are challenged. The fact that a major reorientation of marketing operations can touch the very core of long since established norms, routines and ideas is a reason why it is also tightly connected to political processes. When marketing change agents in different change episodes form around particular change objectives, a key part of the reorganization will be political processes to defend existing structures.

A longitudinal marketing reorganization will be a composition of intended, deliberate, unrealized and emergent aspects of the realized strategy.¹⁵ The long-term, processual and emergent aspects of a large-scale marketing and distribution strategy formation are central parts of the general, corporate strategy of an industrial company.¹⁶ The marketing change is a dynamic, continuous process embedded in the stable and changing internal and external context of the company as a whole.

Change episodes in a network context

With a contextualist approach to longitudinal strategic marketing changes, every strategic change becomes a multilevel and continuous process in context, and thus needs to be captured holistically.¹⁷ The richness and uncertainty connected to the context and the development of strategic change processes are inherent characteristics, as stated by Pettigrew:¹⁸

We find it impossible to comprehend such changes as separate episodes divorced from their historical, organizational and economic circumstances from which they emerge. The point to appreciate is the richness of these contexts and their simultaneous shaping of strategic change. The hallmark of the processual dimension is that strategy does not move forward in a direct, linear way nor through easily identifiable sequential phases. Quite the reverse, the pattern is much more appropriately seen as continuous, iterative and uncertain.

With this view, the conception of strategic change should embrace three dimensions: the inner and the outer context, the contents of the change processes and the process of

¹⁴Involving the major components of industrial networks as described in: Håkansson, H. and Johanson, J., "A model of industrial networks", in: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, 1992, pp. 28-34.

¹⁵Mintzberg, H. and Waters, J., "Of Strategies, Deliberate, and Emergent", *Strategic Management Journal*, Vol.6., p. 257-272, 1985

¹⁶Cespedes, F., "Channel Management is General Management", *California Management Review*, pp. 98-120, Fall 1988

¹⁷Pettigrew, A.M., "Context and Action in the Transformation of the Firm", *Journal of Management Studies*, Vol.24, 1987, pp.649-670

¹⁸Pettigrew (1985), *ibid*, pp.649-670

actions over time.¹⁹ With a contextualist approach to strategic marketing change, marketing becomes a multilevel phenomena covering the past the present and the future. Marketing becomes part of interdependencies between higher or lower "level" phenomena, where a marketing change at one organizational level can be explained at some further level.²⁰

A network view and an open perspective of what constitute "relevant" levels of the context draw attention to the fact that internal-external organizational definitions themselves change over time, are enacted - sometimes differently by different actors - and to the fact that marketing change actions take place in industrial networks where part-whole definitions and tensions develop and change over time. The uncertainty of strategic change processes, as described by Pettigrew, and the subsequent redefinitions of strategic changes are connected to these factors of context variability. The idea of the enacted environment through organized behaviour of individuals permeate a contextualist approach to marketing strategy formation.²¹

Following the general path of the Industrial Network Approach and linking to Pettigrew's contextualist view of strategic change processes, the industrial *context* for marketing reorganizations can be viewed as a network of relationships connecting actors who control resources and are involved in performing activities.²² In accordance with this view, what takes place in the interaction between parties in an industrial, dyadic exchange relationship cannot be understood without taking into consideration what kind of relationship these two firms - or other types of actors - have to other actors. Following the particular path of Johansson and Mattsson,²³ two interdependent levels can be distinguished in an industrial marketing system: the network of exchange relationships between industrial actors (firms, divisions, groups, or individuals) and the production system where resources are employed and developed in production; interdependent resources and activities form the production system. The "production system" is perceived in a wide sense, encompassing the total production, distribution and consumption system where resources are employed, combined and transformed through various activities: R&D, manufacturing, distribution, purchasing etc. The network of

¹⁹Elaborated on in: Pettigrew (1985), *ibid*, chapter 2, Wipp et al, "Understanding Strategic Change Processes: Some Preliminary Findings", (in: Pettigrew, A. (ed.), *The Management of Strategic Change*, Oxford: Blackwell, 1987, pp. 14-55), and in Pettigrew, A. and Whipp, R., *Managing Change for Competitive Success*, Oxford: Blackwell, 1991

²⁰Pettigrew (1985), *ibid*, pp. 47-51

²¹Weick, K.E., *The Social Psychology of Organizing*, New York: Random House, 1969

²²Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, 1992

²³Johanson, J. and Mattsson, L-G., "Network positions and strategic action - an analytical framework" (chapter 11), in: Axelsson, B. and Easton, G., (1992), *ibid*, pp. 205-217

exchange relationships is viewed as a structure governing the production system (Figure 3.1.)

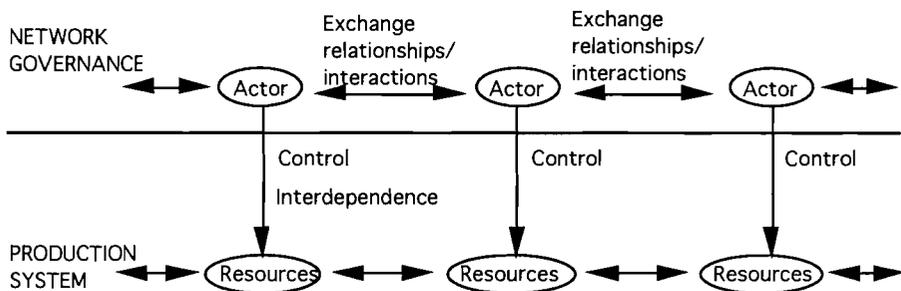


Figure 3.1. Network model of the industrial system

By separating the actors in the network from the resources and activities in the production system, it is possible to analytically handle the linkage to strategic actions, "because the concept of strategic actions presupposes actors".²⁴ That is, actors in industrial networks have intentions. They make interpretations of conditions in the industrial system and they act. An important underpinning is also the fact that:²⁵

...there is not necessarily a one-to-one correspondance between a production system and a network of relationships. For example, an actor in a network may be engaged in exchange relationships covering several production systems or control different, widely separated clusters of resources in one production system. Correspondingly a production system may involve several actors who have no business relationships with each other.

Adopting this general network conception, we can anticipate aspects of change and dynamics which provide a linkage to some of our earlier mentioned ontological assumptions. It allows us to apply the Aldersonian idea of linking marketing system dynamics with technological dimensions; change in industrial marketing systems are multidimensional and clustered, encompassing interdependent, social as well as technological dimensions.²⁶ Accepting the view that there is no one-to-one correspondance between a production system and a network of relationships, we can anticipate also a source for contradictions and tensions.

Change episodes and intercontextual contradictions and tensions

Marketing changes take place in situations of multiple, interpenetrating contexts with only partial coordination between them. *Contradictions* and *tensions* result in the connections

²⁴Johanson and Mattsson (1992), *ibid*, p. 206

²⁵Johanson and Mattsson (1992), *ibid*, p. 206

²⁶Alderson, W., *Dynamic Marketing Behaviour - A Functionalist Theory of Marketing*, Homewood, Ill.: Richard Irwin, 1965, pp. 259-279

between these multiple contexts, sometimes producing incompatible forms.²⁷ A longitudinal, marketing reorganization emerges in an industrial organizational context where several production systems can interpenetrate, creating tensions and causes for adaptation. Such overlaps in industrial networks can be the origin of contradictions and subsequent tensions in the fabric of social life, which in turn often cause people to act and change.²⁸ Organizations can not attend to all such tensions and problems at the same time, but the interpenetration of different contexts is an important underlying factor for *ambiguity* and a driving force for directing people's attention, sometimes leading to change actions.²⁹ In all organizations aiming to change the organization of its marketing operations, contradictions and tensions will occur between new network patterns and productions system structures and the established structures and connected interests.

In line with the systemic conceptions of organizational contexts as dynamic, organizational networks, the contradictions, tensions and even conflicts that emerge in the crosspoints between overlapping, but not totally corresponding, levels of organizational systems, are an important stepping stone when approaching the mechanisms of change processes.³⁰ The direction of change in one system, or the actions of the actors in one system, may not correspond with - maybe even contradict - ongoing changes in connected systems. Dialectical processes emerge from the tensions between previously established social and technological structures and the ongoing social construction challenging established forms. A network conceptualization offers a morphogenetic view of industrial marketing systems; the actors, whether conglomerates, companies, divisions or groups, may actually change and be redefined in the processes of change by their own actions and by the actions of other actors in the network. The ongoing processes of social construction internal and external to a formal organization produce a complex array of interrelated tensions and contradictions.³¹

The industrial system can be viewed as a moving whole with multiple interpenetrating levels and interconnected actors. A principle and view of "totality" - in a general sense -

²⁷The term *contradiction* will be used mainly when referring to the way the industrial *logic* (e.g. between different overlapping productions systems or between different organizational networks) come to be related in an opposed way. *Tension* will refer more to the way actors perceive and sometimes act on these situations. (All contradictions will not be perceived or will be perceived but not acted on) Actors can perceive contradictions both positively and negatively. While these tensions can develop into open conflict, they can also be used as a means to direct attentions and actions in a more positive manner.

²⁸Benson, K., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, pp. 1-21, 1977, Van de Ven, A.H. and Astley, W.G., "Mapping the Field to Create a Dynamic Perspective on Organization Design and Behavior"(chapter 11), in: Van de Ven, A.H. and Joyce, W.F., *Perspectives in Organization Design and Behavior*, New York: Wiley&Son, pp. 427-468, 1981

²⁹March, J. G., *Decisions and Organizations*, Oxford: Basil Blackwell, 1988

³⁰Zeitl, G., "Interorganizational Dialectics", *Administrative Science Quarterly*, Vol. 25, pp. 72-88

³¹Benson, K., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, pp. 1-21, 1977, p.15

draws attention to the intricate ties of marketing organizations, vertical marketing channels and channel systems to the larger industrial context. Organizational networks and sub-networks provide the basis for transformation and change of an organization's morphology, the officially enforced and conventionally accepted view of the organization. Social construction and enactment produce relatively enduring centers, nodes and nets in industrial systems, but in order to understand transformation processes, the conventional, organizational morphology and conventional, arbitrary boundaries must be distrusted as the only starting-point for enquiry into aspects of the moving context.³²

...organizations construct major portions of their environment through the production of resources and through their control of interaction networks; organizational actions and interactions are channeled and constrained through structured resources and through networks of relationships; conflict between organizations is both system-integrative and system-destructive, as the resolution of conflict leads to generation of new ones...

Accepting a general and loose sense of the term, *dialectics* refers to any aspect of social processes having to do with conflict, paradox, mutual interaction, unintended consequences of actions etc. A central feature of dialectical interaction is that the production and exchange of resources lead to system contradictions.³³

Contradictions in interorganizational networks can affect organizational actions in that it becomes impossible to accomplish intentions in a rational manner, and unexpected results can distort actions and lead to structural imbalances. Resource requirement and resource distribution contradictions emerge. Resource requirements in one network or subsystem, or for one marketing change process create contradictions (becomes "antithetical") in relation to the requirements of another connected network/subsystem or change process. It can be assumed that industrial marketing organizations typically are the scene of multiple contradictions, and that the ongoing processes of social construction in different interconnected subsystems produce an array of interrelated contradictions.³⁴ The combinations are contingent upon the ways in which components of the network are linked. These contradictions do not have to lead to open "conflict" or "crisis", but can be contained within the present network. However, the social construction and enactment of organizational contradictions - accepting the loose and wide sense of the term - by actors in a marketing organization, can be an important driving force for actions and change. Enacted contradictions can be perceived as "tensions" - positive or negative - leading to

³²Zeitz, G., "Interorganizational Dialectics", *Administrative Science Quarterly*, Vol. 25, pp. 72-88, 1980, p.73

³³Benson, K., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, pp. 1-21, 1977, Zeitz, G., "Interorganizational Dialectics", *Administrative Science Quarterly*, Vol. 25, pp. 72-88

³⁴Zeitz (1980), *ibid*, p.81. These assumptions build also on insights from our case and the processes whereby the inter- and intraorganizational systems connected to Pharmacia's pharmaceutical, diagnostics and biotech activities in different ways came to interpenetrate over time.

actions and network change.³⁵ This general importance of contradictions for actions and change is indicated by Benson:³⁶

Contradictions feed into the social construction-production process in several ways. (1) Contradictions provide a continuing source of tension, conflicts, and the like which may, under some circumstances, shape consciousness and action to change the present order. (2) Contradictions set limits upon and establish possibilities for reconstruction at any given time. (3) Contradictions may produce crises which enhance possibilities for reconstruction. (4) Contradictions are important, finally, as defining limits of a system. Some contradictions may be crucial of a particular organizational order.

The production process in industrial marketing organizations is carried out in different social contexts producing multiple and sometimes incompatible forms. These contexts vary in regard to the conditions affecting and limiting the process of production. Sometimes they are only loosely coupled, with little coordination between the multiple contexts.

Connecting to marketing change episodes, to enactment and actions of change, and to processual aspect of intercontextual contradictions as driving force for change, the connections and interactions between several ongoing change episodes become a source of contradictions. The processual perspective on contradictions also encompasses the fact that the production of new patterns challenges established structures and interests in industrial marketing networks. This in turn, leads to ambiguity, perceived tensions and change, compelling change actors to modify initial intentions, change contents, and the path of the ongoing change process. The structural, intercontextual contradictions emerging from the differentiated and interpenetrating contexts - the overlapping networks - thus can be assumed to be linked to the development of the strategic change processes and the contents of these processes.³⁷ On the network level, actors can belong to several networks, creating tensions when concurrent changes are introduced.³⁸

³⁵Van de Ven, A.H. and Astley, W.G. (1981) use the general term "tension" to discuss e.g. the contradictions between collective actions and changing, structural part-whole relations in organizational systems.(In: Van de Ven, A.H. and Astley, W.G., "Mapping the Field to Create a Dynamic Perspective on Organization Design and Behavior"(chapter 11), in: Van de Ven, A.H. and Joyce, W.F., *Perspectives in Organization Design and Behavior*, New York: Wiley&Son, pp. 427-468, 1981).

³⁶Benson, K.J., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, pp. 1-21, March 1977, p.16

³⁷Kjellberg, H., Lundgren, A. and Mattsson, L-G. (1993) approach the area with the use of the term "overlapping network" in an analysis of the global biotechnology network. The general idea is that two sub-networks that include the same firms and where the relationships in them also connect the same firms, are regarded as overlapping. They make the basic assumption that intrinsic dynamic forces are found in networks which are neither perfectly overlapped nor perfectly separated.(In: Kjellberg, H., Lundgren, A. and Mattsson, L-G., "Formal Relationships and Activity Structures in Industrial Networks", paper presented at the 9th IMP Conference, Bath, September 1993)

³⁸In this vein, Blau, P.M.(1964) pictured from a social interaction and exchange point-of-view individuals as belonging simultaneously to many groups. Blau's image of part-whole relations is one of intersecting circles where networks of social relationships that define group structure are interpenetrating and overlapping, and the boundaries between them are neither sharp nor fixed: "...groups expand and contract with the mobility of members in and out of them...". (In: Blau, P.M., (*Exchange and Power in Social Life*, Wiley, New York, 1964, p. 284) Also Blau gives an indication of the dynamics inherent in systems of overlapping networks.

The industrial context in which marketing change episodes emerge and change is a context where we can expect different types of contradictions and tensions to be immanent characteristics. Both the *contents* and the *processes* of change episodes can be expected to be dependent on intercontextual patterns which create various types of contradictions:³⁹

Structural Part-Whole Contradictions

The contents and processes of an ongoing strategic marketing change episode might need to be adapted to emerging, structural part-whole relations in the organizational context. If the strategic change episode during the process comes to cover new sets of relations, and has to incorporate or disclose actors from contexts where the "logics" of the interactions and relations or the industrial logic of the activities in the production system are different, some kind of adaptation of the processes and contents will be necessary. Alternatively, the different logics of the interactions and exchange relations or activity structures will have to be adapted to the "logics" and rationalities, to the contents and processes, of the ongoing strategic marketing change episode.⁴⁰ The contents and processes of marketing change episodes are affected by organizational changes creating new part-whole relations and by the fact that the episodes over time can come to involve several connected production systems. The same marketing resources might be used in activities of different, interconnected production systems. Organizational changes might lead to the interconnection of different production systems, resulting in the need for adaptations. Marketing change episodes evolving in this context might have to be adapted to these types of contradictions emerging over time, and vice versa.

Concurrent Change Process Contradictions

In a processual perspective, contradictions can also appear as a consequence of the fact that major marketing reorganizations are embedded in a context of several concurrent changes and to the fact that "the direction, goals and speed of change are contestable among multiple agents, and become the area of conflicts and struggles".⁴¹ Hence, there will emerge contradictions between the "rationalities" of different change processes of the present, requiring adaptations of the strategic change contents and change processes.⁴² The "rationalities" of different change episodes can be related to the process: the logics for when, in what sequence, with what speed and duration the marketing change shall be performed, and what actors that shall be mobilized for the change. The contradictory rationalities can also concern the goals and logics of the contents: changes in the actor structure, in the interactions and/or in the activity and resource

³⁹All three types exemplified are collected from the case study of Pharmacia Biotech.

⁴⁰An apparent example in our case connects to one of the four change episodes described, the so-called Biosystems venture. The reorganization creates a major change in part-whole relations where the former biotech units have to include a number of other, non-biotech actors in their ongoing marketing change processes. The logics of the interactions and of the activities in the production systems connected to these new actors come to contrast with those of the biotech network and contrast with the rationalities of the biotech units' ongoing marketing change processes.

⁴¹See footnote 3

⁴²In accordance with Pettigrew's (1985) descriptions of competing "interest groups". See footnote 10.

structures can be linked to (temporarily) contradictive goals to improve efficiency and/or effectiveness in the marketing operations.

Past-Present Contradictions

Dialectical processes of adapting change contents and change processes to emerging tensions between previously established social and technological structures and the ongoing social construction going against these established forms, will appear. The contradictions emerging between the established stability and "rationality" of historical processes and the changes of the present are important factors determining the dynamics of marketing change episodes. Major marketing reorganizations will be subject to political processes and tensions, involving the (temporal) defence of structures of the historical past by some actors and the mobilization for breaking with parts of that history by other actors.

Inner and outer contexts and moving network boundaries

Major changes in industrial marketing organizations thus create what can be described as new "part-whole" contradictions and tensions, introducing for the involved actors a certain degree of boundary arbitrariness, contradictions in the way organizational units and systems are delimited, and tensions which affect ongoing change actions and result in new actions.⁴³ Each change agent enacts its own organizational context, mobilizing other actors for the marketing changes. Change agents will make their own interpretations of the "relevant" context. And this context will not be static. It will change, sometimes as a consequence of an agent's own actions or by the actions of other actors in the context. It can not be expected that the border between the relevant "inner" and the "outer" context will remain stable during the course of a marketing change process.⁴⁴ The boundaries are moving, creating a dynamic and partly ambiguous organizational context for change agents aiming to redirect marketing operations.

CHANGE EPISODES, MARKETING CHANGE AGENCY AND AMBIGUITY

A morphogenetic view of the industrial network and its actors provides a link to an important dimension of agency⁴⁵ in complex, industrial organizational contexts; change

⁴³Van de Ven, A. H. and Astley, W.G., "Mapping the Field to Create a Dynamic Perspective on Organization Design and Behavior" (chapter 11), (in: Van de Ven, A.M. and Joyce, W.F., *Perspectives on Organization Design and Behavior*, New York: John Wiley, 1981), Hernes, G., "Structural Change in Social Processes", *American Journal of Sociology*, 3, pp.515-545, 1982. Part-whole relations in economic systems is discussed in: Commons, J.R., *The Economics of Collective Action*, Madison: University of Wisconsin Press, 1970

⁴⁴Pettigrew's (1985) distinction between the inner and the outer organizational context is here used in two different ways. Firstly, when approaching the marketing change episodes, the "inner context" will here be the enacted context by the involved change agents. In some of the analytical parts, the "inner context" will be defined from a researcher's point of view as the context involving the biotechnology related actors, activities and resources of our focal company Pharmacia Biotech.

⁴⁵Agency as "the power or force which causes a result, influence" (Longman Dictionary of Contemporary English) can be linked to several types of actors. The ultimate motor of any marketing change will be human

actions will be connected with perceived organizational *ambiguities*. An open network view makes the inside-outside dichotomy not only difficult to draw in a static sense, but it becomes fluid and open for the interpretation and enactment of the industrial actors. If different actors, due to different network positions, make partly different interpretations of the relevant inside-outside boundaries and part-whole relations, this can be an important source of ambiguity when interpreting the structure of the context, which in turn becomes an important factor for directing attentions and actions in organizations.⁴⁶ Ambiguity becomes an important factor connecting the marketing change agents and their perceptions, their change actions and the moving structure.

Ambiguity

A focus on ambiguity and shifting interpretations of the context leads to an alternative path for understanding organizational decision and choice behaviour, leaving aside some of the rationalistic views of the microeconomic, theoretical heritage in marketing.⁴⁷ It means leaving some of the strong quests for simplification and rationalistic views of human behaviour in marketing contexts. The alternative path diverges in another direction, as discussed by March:⁴⁸

If scientific progress is measured by simplification, this is a story of retrogression. From a simple perspective of anticipatory, consequential, rational choice, we have gone first to recognition of the limitations on rationality, then to concern for internal conflict, then to history dependent conceptions of human actions, and finally to an awareness of the profound ambiguities surrounding action in organizations.

These new insights require less simple formulations about change behaviour in industrial marketing organizations. Understanding *ambiguity* is necessary not only for explaining organizational choice behavior in the industrial marketing context, but subsequently also for improving it, in accordance with the reasoning by March. Hence, ambiguity about preferences, about causality and relevance, about history, and about interpretation of the context are not only important aspects of reality, they will here be treated as important aspects of change actions in the industrial context:⁴⁹

It is argued that ambiguity is not only a fact of life, thus a necessary context for action by rational actors, but also often a normatively attractive state.

agency, i.e. the individual and the collectivities of connected individuals using their power and force to alter a situation.

⁴⁶March, J. G., "Introduction: A chronicle of speculations about organizational decision-making", *Decisions and Organizations*, Oxford: Basil Blackwell, 1988, pp. 1-21

⁴⁷Relating to the tradition represented by, for example, Cyert, R.M. and March, J.G., *A Behavioral Theory of the Firm*, Englewood Cliffs: Prentice Hall, 1963

⁴⁸March, J. G., "Introduction: A chronicle of speculations about organizational decision-making", *Decisions and Organizations*, Oxford: Basil Blackwell, 1988, p.15

⁴⁹March (1988) states that the argument is that ambiguity about preferences allows goals to develop through experience. Ambiguity about relevance allows relevance to be explored. Ambiguity about history facilitates motivation to cope with it. Ambiguity about interpretation allows communication to evoke more than a communicator knows.(Ibid, p.15)

Although planning, decision making and choice behavior can be part of the change agent's behavior, the time dependent, morphogenetic and ever changing network severely restricts use of these as tools to achieve pre-set goals. Ambiguity, uncertainty, complexity will be, temporarily and in varying degrees, inherent characteristics of the context in which actions take place. Change is intimately connected to change agents exploiting ambiguities for unambiguous ends.

Marketing change agency, contradictions and ambiguity about structure

Ambiguities in connection with marketing reorganizations will be linked to the interpretations of structures, and of contradictions, manifested e.g. in shifting part-whole relations and inside-outside definitions of industrial networks and marketing organizations.⁵⁰ These interpretations can lead to explorations and actions which redirect the ongoing changes, modifying the context, the contents and the process of change episodes. The perceived ambiguities about the structure of the context, about the tensions and contradictions evolving in the industrial network contexts, are important driving forces for drawing human attention and action.⁵¹

From an industrial network perspective, strategic actions have been described as linked to the market network position, the position being both the ends and means of strategic actions.⁵² The network position of a firm is the outcome of past interactions in all the individual exchange relationships and determines the position in relation to other actors in the network. Strategic actions are linked to positioning processes, whereby industrial actors relate to and interact with other actors, managing the relationships. Thus, change agents will handle the ambiguities by relating to and interacting with other actors in the industrial network. Interactions (and the change of interactions and connected production systems) will thus be both the base for the existence of ambiguities, for reducing perceived ambiguities, and for exploring and handling new ambiguities. Consequently, understanding the nature of the marketing change agency-structure interplay means approaching the ambiguities (about the moving structure) and the way these ambiguities are turned into actions and interactions by adapting the strategic change contents and change processes.

⁵⁰March (1988) discusses four central ambiguities connected to decision making, choice behaviour and strategic actions: ambiguities about preferences, about relevance, about history, and about interpretation.(ibid, pp.12-15)

⁵¹Zeitz, G., "Interorganizational Dialectics", *Administrative Science Quarterly*, Vol. 25, pp. 72-88, March 1980, Benson, K., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, pp. 1-21, 1977

⁵²Johanson, J. and Mattsson, L-G., "Network positions and strategic action - an analytical framework", In: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 205-217, 1992

CHANGE PROCESSES AND CHANGE CONTENTS: MICRO DYNAMICS OF INDUSTRIAL MARKETING CHANGE EPISODES

How does a change episode emerge and change within its moving industrial context? With our considerations of the moving industrial network context, the inherent contradictions of systems, and the ambiguity surrounding marketing change agents' actions as background, we now move into the micro dynamics of marketing change episodes. It has been concluded that these large-scale marketing changes are contextually embedded, intimately linked with time and place. Despite the fact that modern, advanced information and communication systems connect the local with the global in multinational organizations and people in organizations can be seen to interact across indefinite spans of time-space,⁵³ marketing changes are here viewed as strongly linked with both the temporal and the organizational dimensions of their immediate context. Continuous marketing changes - without clear beginnings or ends - can be assumed to encompass both intended, deliberate elements, strategies realized through planning processes, and unrealized and emergent elements.⁵⁴ This notion also provides a link to understanding the temporal duality between marketing action and structure. The strategic change contents, processes and context of a particular change episode are not all likely to be stable over time.

We diverge from the assumptions of the "planning school", which has come to dominate the marketing and channel management literature. Building on the insights from our case, and the ontological and theoretical assumptions concerning change processes, our starting points will thus be somewhat different. The context has been described in terms of a constantly emerging network, but what about the other two dimensions? How do we describe the contents and the processes of the marketing change episodes? And assuming that the contents and processes over time will not be completely stable, can any patterns be discarded in the change and stability of the contents and processes? Can we simplify in any way the interactions between these dynamic contents and processes and the changing context?

A marketing change episode connected to a certain change agent (or a certain set of change agents) will form around its own goals and objectives; it will have its own particular profile and content and process characteristics. A particular marketing change episode can be only a small (but important) part of a larger whole. It will have its own

⁵³Giddens, A., *The Consequences of Modernity*, Polity Press, Cambridge, 1990, p.21

⁵⁴Mintzberg, H., "Patterns in Strategy Formation", *Management Science*, Vol. 24, pp. 934-948, 1978, Mintzberg, H. and Waters, J., "Of Strategies, Deliberate and Emergent", *Strategic Management Journal*, Vol.6, pp. 257-272, 1985

particular "micro dynamics". Next, we probe deeper into some of these micro dynamics discussing: the emergent and morphogenetic nature of marketing change episodes, the interactions and overlaps between marketing change episodes, constructs for approaching change processes and change contents and the interplay between change and stability in contents and processes, and the temporal elements of change episodes.

The emergent, morphogenetic and multidimensional nature of marketing change episodes

The contents and processes of change episodes reflect actions connected to the past, the present and the future, and distribution and marketing change processes are partly cumulative. Several interacting marketing change processes can successively lead to a radical shift in organization and operations.⁵⁵ With a historical perspective, accumulated actions of the more distant past will be reflected in the change contents and processes. During the course of a proceeding marketing change episode, the emerging contents and the processes can shift connections to the present and the future.

A radical marketing reorganization can be connected to several, multidimensional change episodes.⁵⁶ The contents and processes of the emergent strategy from several marketing change episodes become partly determined by intended organizational strategies becoming unrealized strategies during the course of the marketing change episodes. Still, in marketing change episodes there can be elements of a stable intended change strategy turning into a deliberate and realized change.

A radical marketing reorganization thus appears over time, and it is temporally historically embedded. Bringing in time and history into the picture, any marketing change episode will have elements of self-transformation. The structure and agents connected to the marketing change episode act in a mutual interplay. Change agents have some measure of autonomy, "some relative independence of the dynamic social context in which they participate".⁵⁷ They are partly determined by, partly going against the current of existing change processes and existing marketing system structures and norms. Change agents are also unable to envisage the long-term (i.e. unintended and unrecognized) consequences of

⁵⁵As described in the case study, the emergence of the "new" biotech supplier Pharmacia Biotech in 1992 results from such an interaction of changes. The change episodes from 1986 and onwards leave some of the most significant marks on the new marketing and distribution organization emerging after 1992. A merger process, a company group formation, a major distribution and logistics change, a regionalization of the marketing organizations, and a redirection of the after sales service operations are central, interacting change episodes shaping the new structure.

⁵⁶Compare with table 2.1. We now approach the view of the causes of change as "multiple" (several interacting change episodes), "multidimensional" (several dimensions of episode contents and the processes) and "multidirectional" (different change logics, goals and change rationalities of the interacting change episodes).

⁵⁷Sztompka, P., *The Sociology of Social Change*, Oxford: Basil Blackwell, 1993, p. 215

their strategic marketing change actions.⁵⁸ The magnitude of radical reorganizations and the temporal extension contribute to the unpredictability of effects and repercussions.

Conclusively, a marketing change episode might only partly and/or temporarily be part of a delimited, formal project or program. Parts of episodes can be decoupled and integrated with other ongoing change processes. Competing/complementary changes for the same purpose can emerge. Task force groups can become formal, internal actors. When, where and why new internal "actors" are created from marketing change episodes and task force groups can be part of the morphogenesis of change episodes and of marketing reorganizations.

Combining the episodes into a whole, looking at them as part of the company's total, new emerging marketing strategy, the unintended consequences of actions and the morphogenetic characteristics of large scale marketing reorganizations become visible. The ability to handle these unexpected consequences - adapting the contents and processes or buffering from these consequences - becomes central managerial aspects.

Processes: the micro dynamics of interactions and realization

Marketing and distribution change processes evolve in the *interactions* and *relationships* between individuals, groups, divisions and organizations in the industrial marketing organization. This can seem self-evident, but the theoretical and managerial implications of this statement can be far reaching. Mintzberg described with the term *liaison devices*, the growing importance of structures and methods for achieving e.g. interactions between actors in connection with strategic, organizational adaptations and change.⁵⁹ In addition, major problems tend to surface during implementation and interaction that have not been identified beforehand.⁶⁰ The existence of and/or lack of interactions between actors is, in a general sense, connected to opportunities and problems of implementing major strategic changes.

⁵⁸In accordance with e.g. March, J. G., "Introduction: A chronicle of speculations about organizational decision-making", *Decisions and Organizations*, Oxford: Basil Blackwell, 1988

⁵⁹Mintzberg even described it as *the* most important finding: "Mutual adjustments may occur naturally in the small, face-to-face work unit. But how to encourage it across units, when grouping has the known tendency to discourage *interunit* communication even as it encourages *intraunit* communication? In the past, the resolution of this problem was left to chance. But in recent years, as it has become more and more serious, a whole series of what we shall call *liaison devices* - formal parameters of structural design - have developed to stimulate mutual adjustment across units. These, in fact, represent the most significant - perhaps the only significant - development in structural design in the past fifteen or twenty years." (In: Mintzberg, H., *The Structuring of Organizations*, Englewood Cliffs, N.J.: Prentice Hall, 1979, pp.331-332)

⁶⁰In line with Mintzberg's observations, Alexander (1985) observed in a study of the most frequent strategy implementation problems that two of the most common were: lack of coordination of different implementation activities, and the occurrence of competing activities and crisis distracted attention from implementing the strategic actions. (In: Alexander, L.D., "Successfully Implementing Strategic Decisions", *Long Range Planning*, Vol.18, No3, pp. 91-97, 1985)

Hence, interpersonal/interunit, direct interactions are central in the process of implementing a major marketing reorientation. The relationships and the interactions can even be the *sine qua non* for achieving a start, an ongoing implementation and a stabilization of the changes.

Combined with the dominating definition of marketing as concerned with exchange between market actors,⁶¹ attention has been directed towards social exchange theories within the social interaction research domains for concepts, ideas and models.⁶² One question which arises when probing into marketing change processes is how theories on the micro dynamics of interactions have been applied to this particular problem.⁶³ It can be argued that despite the emerging dominance of "relationship marketing" the general reliance on conceptual and theoretical inputs from the rich source of social interaction theories is limited.⁶⁴

Building on the empirical observations and referring to concepts brought in from theories of social interaction we bring up for discussion interactional aspects of marketing change episodes. Two aspects of the processes of marketing change episodes are distinguished: the "realization elements" and the "interaction elements".

A marketing change episode goes through different stages in the process of the emerging change. For simplicity, we choose the concept "realization processes" to denote different development stages. Johnston's non-discrete, non-exclusive stages summarize four central elements of strategic change processes: the development of concern, the acknowledgement and understanding of the problem, planning and acting, and the stabilization of change.⁶⁵

Assuming that the mobilization for strategic marketing change require interactions between individuals and units, the second processual aspect can be summed up with the

⁶¹Bagozzi, R.P., "Marketing as exchange", *Journal of Marketing*, No. 39, pp. 32-39, October 1975

⁶²A general overview of "relationship" related marketing research shows a dominance of references to social exchange theorists: Blau (1964), Emerson (1972, 1981), Cook (1977), (Cook and Emerson 1978). (See list of references)

⁶³Simplifying the picture, the discussion and introduction of interaction elements in industrial marketing contexts seems to follow three broad categories: 1) Empirically derived descriptions of interactions between firms in industrial networks, without detailed references to social interaction theories. To these belong texts from the Industrial Network Approach: e.g. Håkansson (ed., 1982), Ford, Håkansson and Johansson (1986), and Johansson and Mattsson (1987). See also Ford(ed.) (1990). 2) Application of *social exchange theoretic* assumptions and concepts: e.g. in buyer-seller relationship theories (Dwyer, Schurr and Oh, 1987), and in marketing channel theories (Stern and Reve 1980) and in industrial network texts. 3) Application of social exchange theories with more explicit *processual*, transformational perspectives: e.g. Andersson, Håkansson and Johansson's (1991) and Hallén, Johansson and Seyed-Mohamed's (1991) references to Homans (1958), Kelley and Thibaut (1978) and Kelley (1983). (See list of references.)

⁶⁴The dominating references are to a narrow set of social exchange theoretical texts, and references are predominantly used to support studies and discussions of inter-firm interactions in static dyadic contexts.

⁶⁵Johnston, A.V., "Revolution by Involvement", *Accounting Age*, 7(36), (September), 1975. Also discussed in: Pettigrew, A., *The Awakening Giant - Continuity and Change in ICI*, Oxford: Blackwell, 1985, p. 473.

concept "interaction processes". In one of the most comprehensive summaries and analyses of social interaction theories to date, Turner presents an overall division into three constituent properties: motivational, interactional and structuring processes.⁶⁶ Motivational processes are those that energize and mobilize actors to interact and engage in the change process. The interactional processes concern how actors signal and interpret; for example, instead of static role delineations as described in the market channel literature,⁶⁷ we include in these the interactive role-making and role-taking processes when units interact and develop new roles in a marketing channel.⁶⁸ The structuring processes, lastly, are those behaviours that allow actors to repeat and organize interactions across time and space. These can include the development of new routines, new norms and stabilization of information and resource transfers.

This view of the process dynamics of marketing change episodes leaves us with two interdependent processes (Figure 3.2.)

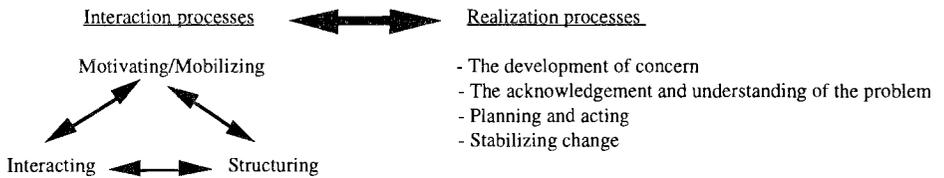


Figure 3.2. Process dynamics: interaction and realization processes

To the micro dynamics of marketing change episodes belong interdependencies between the "interactional" and the "realization" elements. The various steps and stages in the realization interact in different ways with the three types of interactional processes during the course of a marketing change episode. In addition, we can expect to emerge various patterns of interactions between the interactional processes in the marketing change episodes. Building on Turner, the micro dynamics of interactional processes will intersect during the course of a marketing change episode.⁶⁹

Contents: actors, activities, resources and interactions

Every marketing change episode in a complex industrial context is subject to reformulations - to successive alterations of the contents of change. The change contents of a longitudinal industrial marketing change episode - be it "place", "price", "promotion",

⁶⁶Turner, J. H., *A Theory of Social Interaction*, Stanford, CA.: Stanford University Press, 1988

⁶⁷See figure 2.1., chapter 2.

⁶⁸Building on J. Turner's (1988) summary of Ralph Turner's (1979) analysis of roles. (E.g. Turner, R., "Strategy for developing an integrated role theory", *Humboldt Journal of Social Relations*, pp. 114-122, No.7 (Fall/Winter), 1979). Note that we use *interactional* processes to denote one of the three types of processes as well as a conclusive term, encompassing all three categories.

⁶⁹Turner, J. H., *A Theory of Social Interaction*, Stanford, CA.: Stanford University Press, 1988, chapter 12

or "product" related - are truly dynamic. Its dynamics are partly explained by the fact that the contents of a single episode are embedded in the moving context of multiple, concurrent change processes. The change contents of different episodes can have both complementary and contradictory elements. Due to the characteristics of the change processes and the embeddedness in a moving, complex industrial context, it is not to be expected that the contents of a particular marketing change episode will remain completely stable over time; it will encompass both stable and changing contents. New concerns and problems will arise during the course of a change process, leading change agents to direct attention to new change contents. They can also parallel an already stabilized change content. Emerging change contents can stop at the point of acknowledgement, or initiated, later discontinued, or alternatively, can become new stable change contents. Every change content is part of a larger whole.

Adhering to a network conceptualization of the context, the strategic change contents will concern the production system, the *activities* and *resources* of the interconnected production, distribution and user systems.⁷⁰ The contents will also concern the *actors* and the *interactions* between the actors controlling the activities and resources. Any change content concerned with the production system activities and resources will have links to the actors and their interactions, and vice versa. The system of interactions will encompass various stable *norms* that have to be changed, norms which are connected to actors' expectations about rights and duties in the system.⁷¹ Hence, change contents concerning one "level" of the network will have minor or major repercussions on another level, introducing new change contents to the strategic change process. In the interactions, what is changed (contents), will thus overlap with how it is changed (process).

A part of the successive formulation of change contents is also emerging *ideas* and images about the context. The officially formulated and enacted change contents of change episodes reflect changes in perceptions about the context. The development of concerns, the acknowledgement and increased understanding of the problems and change contents, the planning and acting stages and the stage of stabilising change contents can encompass both implicit and explicitly formulated, new views of the context. Official plans emerging during the planning stage will contain explicit accounts of the context in which the change contents are to be implemented. Ideas about change contents blend with new ideas and conceptions about both the process and the context of focal changes. These

⁷⁰Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, 1992

⁷¹The concept of "norms" is multifaceted and it is used in a number of different ways in social theory. We choose here to build partly on Turner's (1988) social interaction based discussion.(In: Turner, J. H., *A Theory of Social Interaction*, Stanford, CA.: Stanford University Press, 1988, chapter 9-10).

ideas become part of the motivational and mobilization processes. Involved actors are not only introduced to successively new change contents when mobilized by change agents, their attention is also directed towards certain parts and aspects of the network context.

Process and content dynamics

Linking the content dynamics to the preceding discussion on the process dynamics, aspects of the changing marketing change contents interact with the process of marketing change realization and marketing interactions (Figure 3.3.).

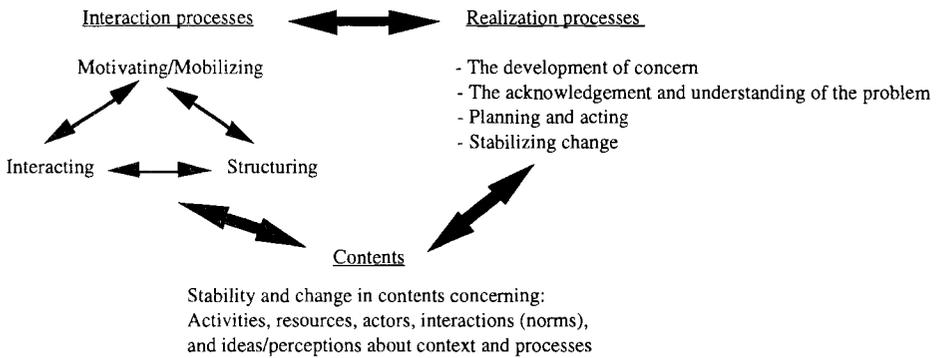


Figure 3.3. Process and content dynamics

From the context dependency it follows that every marketing change episode follows its own logic and rationalities when emerging and becoming stabilized in the organization. Change episodes have no obvious beginnings or endings, and there is interdependence between changes in contents and changes in processes. A modification of the enacted change contents will effect the process of change, which will have effects on the contents, and so on. From the point of view of a change of contents and linked to some defined projects or episodes, a modification of marketing change contents can be more or less "internal", seen from the point of view of the defined episode. From the interdependence between multiple marketing change processes it follows that the change of contents in one episode can affect the process and/or the contents of another defined episode.

Concerning the links between marketing change episodes and the context, the agency of marketing change episodes is embedded in a moving structure which is both the medium and outcome of ongoing changes. This dialectic is discussed towards the end of the chapter from three temporal points of view. Before that, we need to become more explicit about time and temporality.

TIME ELEMENTS OF MARKETING CHANGE EPISODES

Time and temporal dimensions are intimately interlinked with change.⁷²

All social phenomena occur at some moment in time. All social processes stretch over time. In short, social life is lived in time...Obviously, however, time is even more intimately related to social change. The very experience of time and the idea of time derive from the changing nature of reality. It is impossible to conceive of time without reference to some change. And vice versa, the idea of change apart from time is simply inconceivable.

We cannot circumvent the time dimensions of marketing change. Introducing time elements into the context has far-reaching consequences for the understanding, not only of the dialectics of change and continuity, but also for many other aspects of marketing functioning.

Time aspects of change are profoundly elusive. In marketing contexts, like in all cultural, social and organizational contexts, time elements become internalized, taken for granted and time conceptions are seldom brought up to the surface.⁷³ They become institutionalized, self evident, and invisible.⁷⁴ To fulfill the desiderata that a study of marketing change should openly account for time elements, not as descriptive background but as an inherent part of the context, there is a need to be explicit about the time elements of change episodes and their context.⁷⁵ To understand the dialectical relationship between continuity and change in marketing networks, another desiderata, we need to understand more about time elements of change.

Edward Shils' conclusion that:⁷⁶

A society is a "trans-temporal" phenomenon. It is not constituted by its existence at a single moment in time. It exists only through time. It is temporally constituted.

can be applied to a marketing organization context. It means applying a morphogenetic view of what is an "actor", what constitutes a "company" or a "marketing channel".⁷⁷

⁷²Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, p. 41

⁷³Adam, B., *Time Watch - The Social Analysis of Time*, Cambridge: Polity Press, 1995, p.5

⁷⁴In almost every social science area, as well as in the natural sciences and in the literature (and other cultural areas), there is almost an endless number of books and articles and other pieces of work focusing specifically on the mysteries of time. Our references and our discussion here will only represent tiny fragments of the many ways to approach these mysteries. To the many science areas can be added also marketing, where temporal elements are being surfaced and time is becoming the very focus of research. (See for example: Antonides, G., Arts, W. and van Raaij, W.F.(eds.), *The Consumption of Time and the Timing of Consumption - Toward a New Behavioral and Socio-Economics*, Amsterdam: North-Holland, 1991)

⁷⁵Hernes, G., "Structural Change in Social Processes", *American Journal of Sociology*, 82 (3), pp. 513-545, 1976

⁷⁶Shils, E., *Tradition*, Chicago: University of Chicago Press, 1981, p. 327

⁷⁷In the case description, the "internal-external" dichotomy changes and the definition of the focal actor and its marketing system changes: during the first periods the definition of the focal biotech supplying actor is in relation to the other connected organizational units and technologies of the Pharmacia Corporation

The definition and delimitation will change, depending on when and in relation to which actors in the context that the definition is made.

The partly cumulative nature of change means that fragments of the past will always be an inherent part of the present change episodes. In other words, clearcut divisions into stages, phases and periods will in parts always convey misleading pictures of a continuously changing reality where elements of the past will feed into the contexts and processes dominating - and defining - the present.

Like in every social process, time and temporal dimensions blend with the development of industrial marketing processes. Like in so many other aspects of social reality, time is becoming a (the) central factor organizing human activities, e.g., industrial marketing. As stated by Alfred Marshall:⁷⁸

The element of Time....is the centre of the chief difficulty of almost every economic problem.

The multitude of approaches to and perspectives on time and temporality in social and economic research signals an important conclusion; time is a multifaceted "element" of social change which cannot be captured easily within the frames of one or even a few chosen perspectives, concepts, descriptions or thought-patterns. When Pfeffer states that:⁷⁹

Timing Is (Almost) Everything. In utilizing the strategies and tactics of power and influence, it is crucial to determine not only what to do but when to do it....consider the important but often neglected time dimension of timing. Actions that are well-timed may succeed, while the same actions, undertaken at a less opportune moment, may have no chance of success...

he points to *one* central time aspect of strategic organizational processes, highly relevant also for marketing change processes.⁸⁰ The many sub aspects of timing, i.e., when and where marketing actions are timed and located in the moving context, represent only a few of several possible viewpoints. Building on the insights from our case, applying selected, central time perspectives in the literature, and guided by our research questions and research perspectives, we approach the temporality of marketing changes from five basic viewpoints. To introduce the discussion, some of the *functions of time* in social systems are presented, giving indications of general time elements that can be embedded

(pharmaceuticals and diagnostics), while in the latter periods, the actor definition is mainly based on the intra-corporate network of only the biotech supply organization.

⁷⁸A. Marshall, 1890 (1961, p.vii). Quoted in the introduction of: Winston, G., *The timing of economic activities - Firms, households, and markets in time-specific analysis*, Cambridge: Cambridge University Press, 1982

⁷⁹Pfeffer, J., *Managing with Power*, Boston: Harvard Business School Press, 1992, chapter 12

⁸⁰Sztompka (1993) presents time aspects of social research as one of the most rapidly growing since the 1970s. (In: Sztompka, P., *The Sociology of Social Change*, Oxford: Basil Blackwell, 1993, p. 55)

in the structures of industrial marketing organizations. The time elements of marketing change episodes is discussed in terms of *temporal profiles* of marketing change episodes. Aspects of *timing* of marketing change episodes links the episodes to their moving context. Change agents involved in marketing change processes have different ways of experiencing and handling time; we thus introduce aspects of *social time*. This leads over, finally, to a discussion of various *links between time, change and stability* in an industrial marketing context.

Functions of time

Sztompka suggests that the centrality of time can be linked to a number of universal functions that time serves in a social context.⁸¹ Six central, general functions are suggested, related to: synchronization, coordination, sequencing, timing, measuring and differentiating. It can be assumed that in connection with a reorganization of marketing operations, all these universal functions of time in network structures are underlying organizers of individuals and collectivities that become affected and involved in some way or another.

A significant factor in a reorganization of industrial marketing operations will be how different functions of time guide the actions of individuals and collectivities during the course of a change, and how they have to adapt to and modify, perhaps implant new, dominating time functions in the organizational and operational structures.

Bringing to surface aspects of the changing time functions, they can be connected to what time function(s) in the existing structure that the marketing change is aimed for. Every marketing change can be assumed to be aimed for - at least implicitly - certain, stable time functions embedded in the interactional and operational structure in this context. Long-term marketing change episodes do not evolve undisturbed by contextual changes. Also the temporal profiles of the episodes (as part of the change contents and processes) are subject to changes. Over time, the development of certain change episodes are affected by the dominating, underlying time functions. During processes of change, tensions between different dominating time functions in different parts of the marketing organization will surface; also within companies, tensions between different institutionalized temporal functions can be surfaced.

Temporal profiles of marketing change episodes

It can be assumed that every marketing change episode has its own particular time profile. *When* a particular episode is performed, timed, in sequences of events is only one of the temporal aspects determining the impact and development of the change processes and the

⁸¹Sztompka (1993), *ibid*, pp. 50-53

actual change contents, within the dynamic context.⁸² The sequential structure, the duration, the speed and the repeatedness/uniqueness of an episode will be part of its temporal characteristics, its temporal profile. What stable functions of time in the network structure that the change contents are aimed for is another part of the episode's characteristics.

Several temporal aspects are interconnected with the periodicity of marketing changes.⁸³ Changes in the pace and tempo - speed - of change processes, and alterations in the duration and repeatedness of processes are also connected to the linearity of strategic changes. It concerns the directional consistency of the change processes over time:⁸⁴

...one conception of change would anticipate a cumulative momentum or "roll" from one (strategic) archetype to another. An alternative conception would perceive the organization as pulled and tugged between competing interests and, as a result, characterized by disjunctions, oscillations and temporary reversals or delay in the overall movement towards a different archetype.

Large scale marketing reorganization processes are likely to be punctuated by several, temporary reversals in the seemingly consistent moves between system structures.⁸⁵ Hence, strategic marketing reorientations are not likely to be smooth evolutions, characterized by a clear temporal linearity of the change processes. How companies and change agents over time handle the oscillations between change paths, the reversals and backtracks, becomes important. It can also be formulated as a problem of handling the non-linearity of change and alterations of time elements of change during the course of the process.

Every marketing change episode develops its own temporal profile in interactions with the moving network context. Many different kinds of movements are occurring concurrently in the industrial marketing context, but the speed(pace) of change, the sequential order, the duration, the repeatedness, the linearity and the timing (the latter discussed below) may vary between episodes. The temporal profile is determined by the single episode's interactions with other episodes of the present in the marketing organization. Changes in

⁸²Sztompka (1993): "Every social event or social change has its own, proper "temporal profile", a combination of four temporal characteristics: 1) sequential structure (the pattern of stages specific, for example, for daily routines, religious rituals, occupational career, economic growth etc.), 2) duration (the length of time it lasts), 3) localization in wider sequences ('when' it actually occurs), and 4) repeatedness or uniqueness."(ibid, p.55)

⁸³Hinings and Greenwood (1992) briefly describe under the heading "periodicity of change" the three temporal aspects *pace*, *sequence* and *linearity* as central to the processes of strategic change.(In: Hinings, C.R. and Greenwood, R., *The Dynamics of Strategic Change*, Oxford: Basil Blackwell, 1992)

⁸⁴Hinings and Greenwood (1992), *ibid*, p.107

⁸⁵All the major marketing change episodes in the Pharmacia Biotech case encompass oscillations between different competing paths of change. The overlaps between different change episodes at different organizational levels in the network is an important origin of "backtracks" and "temporary reversals", as described by Hinings and Greenwood (1992), *ibid*, p.115.

temporal profiles of strategic marketing changes become intertwined with changes in the contents and processes.

The temporal profile is also related to the more long term processes of change. It is even related to the very long term, historical processes of the company and the marketing organization. Hence, the temporal profiles of marketing change episodes are partly determined by their interactions with episodes of the present, and by their embeddedness in the medium and long term historical processes. This draws attention to an already mentioned aspect of time, *timing*.

Timing of marketing change episodes

From a marketing agency perspective, there are numerous situations appearing over time when change agents must take actions to change. *When* such marketing change actions appear may determine the successive development of the change process. Strategic change of any kind is partly determined by its timing:⁸⁶

Actions that are well-timed may succeed, while the same actions, undertaken at a less opportune moment, may have no chance of success.

Given the dynamic and complex characteristics of industrial networks, and the limited network and time horizons of marketing change agents, the question appears what is actually meant by a "well-timed action" and an "opportune moment", or even, is there any use in trying to time marketing change actions? In addition, in relation to *what* or *whom* in the moving context should a marketing action be temporally related? A tentative starting point and assumption is that every marketing change action will be both well and badly timed, depending on time horizon and in relation to what it is seen. Several aspects can be acknowledged as part of the diffuse concept of timing:⁸⁷ 1) Placement in time of individual actions: an individual action connected to the contents and process of a certain change episode is temporally positioned in a cluster of other actions. The position can be assumed to have significant effects on the future development of the process. 2) The distribution over time of sets of actions: the contents and processes of certain change episodes can also be connected to a longer sequence of actions. The temporal position and structure of such sets of actions can be important determinants of the development of the change process. 3) Changes in the patterns of actions over time: over time actors establish certain stable, temporal patterns of the actions. A strategic reorganization can encompass

⁸⁶Pfeffer, J., *Managing with Power*, Boston: Harvard Business School Press, 1992, p. 227

⁸⁷From: Grönmo, S. and Ölander, F., "Micro-macro relationships in the study of time and consumption", In: Antonides, G., Arts, W. and van Raaij, W.F.(eds.), *The Consumption of Time and the Timing of Consumption - Toward a New Behavioral and Socio-Economics*, Amsterdam: North-Holland, 1991, p.229

also the change of such stable patterns. Timing can thus be connected to a number of overt strategies.⁸⁸

A central part of the temporal profile of marketing change episodes becomes the handling of the different aspects of timing. The development of the emerging change contents and change processes of marketing change episodes is intimately connected to their temporal positions in the moving context. The How and Why questions of the marketing agency-structure interplay is tightly connected to the question of When this interplay occurs.

Social time and marketing change

Market actors in general and marketing change agents have different ways of perceiving time. The timing of marketing actions becomes connected to the change agents' perceptions of the network, of ongoing change processes and of their readiness to act on these changes, and on their general readiness to change.⁸⁹

Reflected in the change agents' behaviour, they act with different time horizons and take different time perspectives when changing their network positions and acting in an interplay with the moving context. The dynamics of change episodes, including the agency-structure interplay evolve with change actors with different time perspectives:⁹⁰

People are time travellers; they take different time perspectives to reflect on their past, present and future behaviour. These perspectives are used in planning new behaviours, in anticipating new situations that one may encounter in the future. These reflections are necessary in evaluating past behaviours, and in planning future behaviours on the basis of the evaluations of the past. These reflections are necessary in executing behaviours. Our ideas of what we are doing depend in part on the time perspective taken and on the time horizon. If we travel in the future and retrospect on our present behaviours, we might gain knowledge that is instrumental in determining what we are doing today, and what we did yesterday.

Change agents of marketing change episodes take different time perspectives, but these cannot be expected to remain stable during the whole course of a longitudinal change process. It is also to be expected that the choice or adaptation of time perspective effects what is acted on, the contents, how it is done, the process, and in what structure, context, that it is done. From the embeddedness of marketing change episodes follows also that a change agent's time perspective - the vantage point and the viewing direction (towards the

⁸⁸Pfeffer (1992) thus discusses four general types of timing strategies: a) advantages of taking early first action, b) delay as change strategy, c) use waiting to build power, d) use order of consideration, e) use time allocations, and f) acting when the time is ripe. (In: Pfeffer, J., *Managing with Power*, Boston: Harvard Business School Press, 1992, chapter 12)

⁸⁹Andreasen, A.R., "Readiness to change: Theoretical, empirical and managerial issues", in: Antonides, G., Arts, W. and van Raaij, W.F.(eds.), *The Consumption of Time and the Timing of Consumption - Toward a New Behavioral and Socio-Economics*, Amsterdam: North-Holland, 1991, pp. 138-148

⁹⁰Pieters, R.G.M. and Verplanken, B., "Changing our minds about behavior", in: Antonides, G., Arts, W. and van Raaij, W.F.(eds.), *The Consumption of Time and the Timing of Consumption - Toward a New Behavioral and Socio-Economics*, Amsterdam: North-Holland, 1991, pp. 63-67

past, present or future)⁹¹ - partly is determined by changes in the context. Hence, changes in the time perspective of a change agent, and subsequent adaptations of structural orientation, can be determined by changes elsewhere in the context.

This also encompasses the opportunities to coordinate time perspectives in networks between actors and across change episodes. Tensions and contradictions between episodes can be dealt with by coordinating and adapting different time perspectives. The aim of the factual change episodes can also be to change the inherent, stable time structures of the production system, the activities performed, and the time structures of the interactions between actors controlling these activities. The "temporal bonds" between actors in the network might have to be altered.⁹² The coordination of time perspectives across change episodes can be the seed for introducing new stable temporal bonds between actors in the marketing organization.

Time, change and continuity are intimately related. It can be expected that in the short time perspective, the coordination of time orientations across several marketing change episodes during a reorganization process can increase the opportunities to create continuity in - stabilize - the ongoing processes of marketing change. The agency-structure interaction for one particular change agent, thus depends on the way it is coordinated with other ongoing changes in the context. In a longer time perspective, marketing change episodes can introduce a new stable logic for how the activities are performed and the actors interact. The stable, ongoing processes of structural change introduce new, stable temporal bonds in the marketing organization structure. The agency-structure interplay of the change episodes also becomes more stable and predictable.

The mutual interdependencies between stability and change are related to the patterns of connections, to the patterns of loose and tight couplings, in the organization.⁹³ The

⁹¹Pieters, R.G.M. and Verplanken, B. (1991). *ibid*, p. 59

⁹²Hammarkvist, K-O, Håkansson, H. and Mattsson, L-G., *Marknadsföring för konkurrenskraft*, Malmö: Liber, 1982, pp. 23-24

⁹³Chapter 9 brings up for a more detailed discussion the mutual relationship between stability and change, relating to texts on loose and tight couplings. It connects to a discussion on distribution channel dynamics started in 1992: Andersson, P., "Analysing Distribution Channel Dynamics: Loose and Tight Coupling in Distribution Networks", *European Journal of Marketing*, Vol 26, No 2, pp.47-68, 1992. Effects of loose and tight couplings are discussed e.g. in: Glassman, R. B., "Persistence and Loose Coupling in Living Systems", *Behavioral Science*, Vol. 18, pp. 83-89, 1973, Weick, K. E., "Educational Organizations as Loosely Coupled Systems", *Administrative Science Quarterly*, Vol. 21, pp. 1-19, 1976, and Orton, J.D. and Weick, K.E., "Loosely Coupled Systems: A Reconceptualization", *Academy of Management Review*, Vol. 15, No 2, pp. 202-223, 1990. The implication of loose couplings within organizations, within systems of organizations and between systems is that units become relatively independent of momentary environmental change. Hence, the presence of loose and tight couplings provide a background for understanding both persistence and transformation in organizational networks.

ability by marketing change agents to introduce change in one part can be dependent on the ability to build on tight couplings and stability in another.

Conclusively, the relationship between change and stability depends on the time perspective. Here, links between marketing change and stability, as related to the agency-structure relationship in a moving context, are approached from three temporal perspectives.

THREE TEMPORAL VIEWPOINTS ON AGENCY AND STRUCTURE IN A PROCESSUAL PERSPECTIVE

Understanding the duality of industrial marketing structures and marketing agency means conceptualization of the fact that the structural properties of social systems are both medium and outcome of the practices they recursively organize.⁹⁴ Understanding the processual duality of agency and structure means understanding the synthetic product - not separation - of the marketing change process, contents and the marketing context, at specific points in time and in specific contexts.

Taking another step towards abstraction, a marketing change process can be dissected into temporal perspectives, each with a particular focus on the relationship between marketing change and stability. A major marketing change and the agency-structure interactions will encompass different and over time shifting elements of the past, the present and the future. More concretely, in a marketing reorganization process change agents will have to cope with stable structures emerging from the long, previous history of the system, with structural germs and emerging stability of the immediate past, and with structures emerging in the present, while having intentions about the future, planned structure. Sztompka summarizes social change in general in three temporal constructs:⁹⁵

"Functioning" covers all that is happening in society at some moment in time. "Social change" describes a single transformation of society from one, earlier state to the next, later state. "Historical process" refers to the sequence of self-transformations that society undergoes in a long span of time.

With the contents, the processes and the focal actors of the marketing change episodes as starting-point, the agency-structure problem can be approached from different perspectives, anchored to the theory and to some peculiarities and findings in the case of Pharmacia Biotech. We approach the agency-structure problem from three different temporal perspectives:

⁹⁴Giddens, A., *The Constitution of Society*, Cambridge: Polity Press, 1984

⁹⁵Sztompka, P., *The Sociology of Social Change*, Oxford: Basil Blackwell, 1993, p. 227

- I. "Concurrence"
- II. "Transition"
- III. "Evolution"

Concurrence - agency and structure embedded in concurrent change episodes

Marketing changes do not come alone. Different marketing change episodes - sequences of events forming episodes initially connected to a specific group of actors - become the context of each other. The change contents and the course of the change process in one episode interact with and are changed not only due to its own actions, but due to the fact that other, ongoing change episodes modify the structural context. Strategic marketing change processes are thus seen as firmly situated in the "present", in a context which is moving due to other loosely and tightly coupled change episodes taking place concurrently. The duality of agency-structure becomes, in this perspective, closely linked to the concepts "coordination" and "synchronization". Marketing change becomes connected to the processes of stabilizing the change episodes and creating continuity in the ongoing processes of structural change.

Transition - agency and structure and marketing system transitions

The interaction of agency and structure is manifested in a dynamic and, for the actors, ambiguous, complex, uncertain and variable way during structural transition periods. During such transitions, the agency-structure interaction is manifested in modified change contents and modified change processes. The short-term aspects of marketing actions and structure encompass the handling of transition situations when the old structure has been reorganized and the organization is heading for - but has not yet implemented - a new structure. Not only the focal structure modifying process is affected, but also the other marketing change processes concurrently taking place in the network. Both the object of change, the contents, and the subjects of change, the processes, are affected by this situation. The general problem of how to change the existing structure to create a new, while simultaneously living with and within the stable or emerging stability of the old structure, is focused. It can be a matter of breaking the emerging stability of changes in the immediate past, and redirecting the emerging continuity of marketing change processes continuing from the immediate past.

Evolution - agency and structure in the long-term historical processes of change

The change episodes are embedded in a moving context that moves over time, slowly pushing the changing networks in new directions. The contents and processes of focal, marketing change episodes are both timely and spatially embedded in long-term, historical, slow moving evolutionary changes. This means addressing the problem of how change episodes become embedded in and interact with the long-term, evolutionary,

structural changes in the context. Marketing change can be a matter of breaking with very stable structures built up over decades. From a processual perspective, it can be a matter of breaking with the continuity of historical evolution, trying to redirect the long-term, stable processes of structural change.

Transferring the perspectives to the coming story of Pharmacia Biotech and with empirical insights at hand allows for the general abstraction of the marketing agency-structure interaction through time. The case contains all three time perspectives, and is constructed from the three perspectives. The marketing change episodes are placed in the slow flow of historical time. Hence, it is in one perspective the history of the long time span.⁹⁶ The case of the emergence and change of Pharmacia Biotech does not cover centuries, but roughly half a century (1941-1995), embedded in the emergence of Pharmacia, starting pharmaceutical business operations in 1911. This is the historical time span, the "historical process".

The second time span is reflected in the division into different phases of functioning of Pharmacia Biotech and the company's marketing organization. Each phase is a new and different state in the becoming of the company's marketing organization. The company's process of self-transformation is endless, but the second time span depicts different stages, with particular characteristics, in the development of the industrial marketing organization. It is the "social change", i.e., transition, of Pharmacia Biotech's marketing organization, taking the system from the immediate past to the present, while moving towards a future structure. The BTG-LKB merger 1986-89 transcends into the period of radical reorganizations 1989-93, which in turn is transformed into the state of more continuous and stable change processes 1993-95.

The third time span is heavily focused on the present, on the "functioning" of the system. It is concerned with the present operations and changes of the industrial marketing system. In this is included as a central element the concurrent, contestable marketing actions of several interlinked change agents (in the case between 1989 and 1993 described as overlapping and interacting change episodes) and the continuous reformulations and interactions of change episode contents and processes.

⁹⁶In Braudel's(1958)terms:"...we find a history capable of traversing even greater distances, a history to be measured in centuries this time: the history of the long, even of the very long time span, of the *longue durée*.(In: Braudel, "History and the Social Sciences. The Longue Durée., *Annales E.S.C.*, No. 4 (October-December), pp. 725-753, 1958, p. 27) Our case does not cover these very long time spans. The term *evolution* relates in our case study to several decades.

IN CONCLUSION: VIEWS ON STRATEGIC INDUSTRIAL MARKETING CHANGE AND EVOLUTION

Having chosen and laid out some general perspectives - no grand coherent theory or model - we need to summarize the implications of previous discussions. One important starting-point is that there are no boundaries between "corporate strategy" and "marketing and distribution strategy".⁹⁷ With a network view of reality and strategic change and business behaviour in industrial networks, what are then the important viewpoints for approaching managerial marketing actions? From a broader network perspective, the strategy of a business enterprise can be viewed as the outcome of an interplay of all actors involved.⁹⁸ The contingent strategic actions and change behaviour of one change agent (a company) in an industrial marketing network can be viewed as interdependent with the actions taken by all the other different actors (companies) in the network. A new ordering of positions in the network emerges. Taking the viewpoint of the single actor,⁹⁹ strategy and strategic actions in industrial networks can be viewed as the efforts of the single firm to change its position in the network. A change in network position, among other things implies that the single actor's and its counterparts' sets of roles in the network changes. Change actions in industrial marketing organizations thus become a sort of entrepreneurial actions whereby the links between actors are reorganized, the strength of the ties between actors are changed, and the pattern of interlinked activities is modified. A new pattern of specialization emerges in the process of relating in a new way to the moving context. A single actor can have intentions to change its present position, e.g., by reorganizing its marketing operations and attempt to relate in a new way towards their customers, for example.¹⁰⁰

Irrespective of viewpoint, with the network perspective, there will be patterns of activities determining goal achievement in a certain context, a context which is inherently ambiguous, uncertain, complex and with salient features.¹⁰¹ Strategies emerge, and they do it from the fact that subsystems (e.g. marketing and distribution systems) interplay and are connected. Strategy can thus be perceived as the result of a build-up process by which

⁹⁷In accordance with: Cespedes, F., "Channel Management is General Management", *California Management Review*, pp. 98-120, Fall 1988

⁹⁸In accordance with the total network perspective on strategy formation discussed by Snehota, I. (1992). (In: Snehota, I., *Notes on a Theory of Business Enterprise*, PhD thesis, Department of Business Studies, University of Uppsala, 1990, p. 216)

⁹⁹In accordance with the actor based, network positioning strategies discussed in: Mattsson, L.-G., "Management of Strategic Change in a 'Markets-as-Networks' Perspective" (in: Pettigrew, A., *The Management of Strategic Change*, Oxford: Basil Blackwell, 1987), and Johanson, J. and Mattsson, L.-G., "Network positions and strategic action - an analytical framework" (in: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 205-217, 1992)

¹⁰⁰Mattsson (1987) and Johanson and Mattsson (1992), *ibid*

¹⁰¹Snehota, I., *Notes on a Theory of Business Enterprise*, PhD thesis, Department of Business Studies, University of Uppsala, 1990, p. 216)

a business idea is translated, elaborated and enacted over time which makes it bear little resemblance to the original idea. From a broader network perspective, what may appear as periods of stability, may actually be periods when the awareness of the exercise of entrepreneurial action in the network is limited. It may signify that (effective) management has been left to someone else in the context.¹⁰²

It can be anticipated that some of the strategic marketing actions actually are initiated in a context in a remote point in time and evolve in a context whose conditions have been changed. What is perceived as a strategic marketing action can thus be initiated in a context which has already been changed as the actions evolve. From a company network perspective, actions are both constrained and open for options. Time, with its lead and lag effects of other actions in the context put a limit on what can be managed by one single marketing actor.

A network perspective on marketing change?

Despite the fact that our network perspective on marketing change, to a great extent, is implicit in the study's descriptions of change in Pharmacia Biotech, the foundation in an interaction perspective is there. Interactions and relationships are the sine qua non of industrial networks, but a large part of the empirical descriptions are concerned with the difficulties to reorganize and reorient marketing operations due to the *lack of* established (internal and external) interactions and relationships, forcing change agents to build up new types of interactions and relationships in the marketing organization. They are also concerned with the difficulties to break with established interaction structures.

Comparing with the two network perspectives on strategic change described - taking the viewpoint of the total network from the outset or taking the viewpoint of the actor - the study in parts encompasses neither and both. One link between the two relates to the difficulty to easily define and keep to a definition of focal "actor" or "actors". In reality, an actor can easily be seen as a morphogenetic node. The argument embedded in the study is that in order to understand change, the focal actor cannot be taken for granted. In one sense, the actor perspective here is obvious: the focal marketing change episodes are described from the points of view of the responsible task force groups. They are the focal change agents mobilizing other actors for change. The descriptions are built on their views of the context and of the change processes. In another sense, the problem of taking for granted formal companies as the most relevant actor level when defining networks is highlighted (given that an increased understanding of marketing change processes is in focus). In other words, while in a narrow sense Pharmacia can be viewed as the focal

¹⁰²Snehota (1990), *ibid*, p.216

industrial actor, the study shifts between organizational levels in the descriptions, focusing the constellations of internal actors (groups, divisions, formal companies) which directly and indirectly become connected to the marketing changes. The study implicitly poses the question whether the formal boundary of a company ("Pharmacia", "Pharmacia Biotech") necessarily is the best or most "natural" way to approach the actor and its network, when probing into the processes of changing marketing strategy. The boundary between the internal and the external network cannot be taken for granted. For actors responsible for mobilizing others for change - say, in relation to customers - a number of other, formally "internal" actors (often companies) are connected to the process, providing both the opportunities and constraints for the change. The boundary between internal and external network is fluid, depending on the enactment and perceptions of the actors involved.

With the task force groups' perspectives - groups mainly situated in the central, headquarter organizations of Pharmacia Biotech¹⁰³ - the study connects to the tradition of distribution research, rather than the network and interaction tradition where direct interactions between buyers and sellers are in focus. Hence, our intermediate actor level, the marketing subsidiaries, are viewed as actors in a vertical marketing channel more than as internal, integrated units of the seller organization in a buyer-seller dyad. With our particular change agents, this means that customers will only be indirectly described. That is, emphasis will rather be on descriptions of the central change agents' attempts to mobilize marketing subsidiaries to change their way of interacting with the local customers, a classical distribution problem. We introduce also a stronger emphasis on the complexities of the "horizontal" level of the industrial marketing channel; marketing change occurs partly as a concurrent mobilization of "horizontal" (e.g several concurrent, interacting actors of several change episodes) and "vertical" units, in terms of a normative marketing channel structure.

SUMMARY: STRUCTURE OF CASE STUDY AND ANALYSIS

With our three temporal perspectives as starting point and the general theoretical discussions of **Part I** as foundation we suggest that the reader moves into the separate Pharmacia Biotech case narrative, and Part II which introduces a discussion of the case that - in some parts - builds on the same structure as the case.

¹⁰³Excluding the descriptions of the so-called regionalization process, which mainly takes the new intermediate regional organization's perspective, i.e that of Pharmacia Biotech's Brussels organization.

To set the scene, the case book starts with a Prologue, followed by chapter 1 which sums up some of the major movements in Pharmacia Biotech's industrial ("outer") context.¹⁰⁴ It describes some major movements in the interconnected pharmaceutical-biotech industries, focusing mainly on the period before and during Pharmacia Biotech's marketing reorganization.

In chapter 2 of the case book, we enter the focal marketing change episodes 1989-93. It relates to the problems of "concurrence", describing four interacting change episodes. Three of these - the distribution and logistics episode, the after sales service episode, and the regionalization episode - are aimed at the core of the Pharmacia Biotech's marketing organization, while the fourth - the Biosystems episode - describes an organizational change episode affecting the company and its relations to other companies in the Pharmacia Group.

Chapter 3 and 4 of the case book add to our understanding of "transition", that is, of the four change episodes' intermediate position between episodes of the immediate past 1986-89 - a long-term merger process between Pharmacia Biotech (BTG) and LKB Produkter AB - and marketing change episodes of the period 1993-1995.

Chapter 5 in the case takes several steps back in time, describing the "evolution" of Pharmacia Biotech and its marketing system from 1959 (with a prologue starting around 1941) to 1986 and the start of the BTG-LKB merger. The chapter thus adds a piece to the picture of Pharmacia Biotech's historical process, in which the marketing change episodes are embedded. In chapter 6 is described some of the major long-term movements of parts of Pharmacia Biotech's immediate and most important context, that of the Pharmacia Group. Within this organizational context ("inner" and/or "outer" context depending on the perspective chosen) Pharmacia emerges as biotech supplier. Figure 3.4. sums up the steps in the case narrative.

In the long-term historical perspective, the marketing change episodes will be seen to be related partly differently to the history of the company and the marketing system. They will also move partly differently towards planned, future states of the system. The change agents in the company's marketing change episodes, thus relate partly differently to processes and structures of the past, the present and the future.

¹⁰⁴In accordance with e.g. Pettigrew's (1985) suggestion that a contextual analysis and understanding of strategic change processes can be enhanced if based on an initial understanding of the context, in this case, the "outer", industrial context. (In: Pettigrew, A., *The Awakening Giant - Continuity and Change in ICI*, Oxford: Blackwell, 1985)

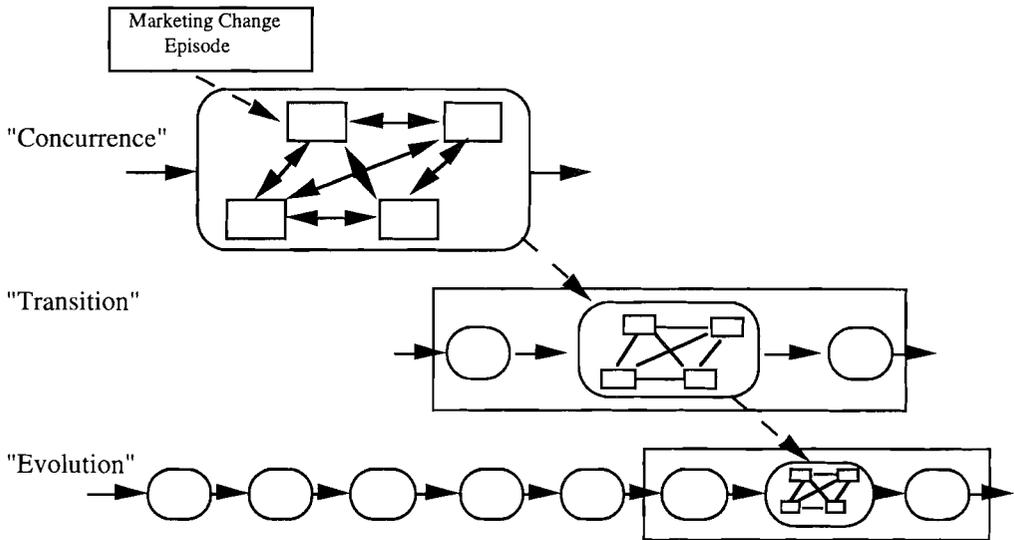


Figure 3.4. Steps in the case narrative: concurrence (four concurrent change episodes), transition, and evolution. (A more detailed introduction to the case study is presented in the Prologue pp.1-11 in the separate case volume.)

Returning then to **Part II** of this text, the discussion in chapter 4 takes as starting point one of the four marketing change episodes, the after sales service episode. Separating out the episode, the chapter takes a look at some patterns in the micro dynamics of a marketing change episode; the relations between interactional processes and steps in the realization process, and the relations between these and change and stability in change contents. This micro dynamics of the episode is also discussed from the point of view of the episode's temporal profile, what functions of time in the structure that the episode affects, aspects of the change agent's time perceptions (social time), and lastly, aspects of timing of change contents and change processes. Change agents' ambiguities about the moving context is also brought up for discussion.

Chapter 5 of Part II puts the focal episode of chapter 4 in a context of other concurrent episodes. It brings up for discussion interactions between the micro dynamics of several ongoing change episodes at different levels and in different parts of an organization. It brings up also the interactions of various time elements of different change episodes.

In Chapter 6, both the systemic and temporal perspectives are changed, as the change episodes are put into their moving internal, marketing channel context. One central aspect of the discussion concerns the moving boundaries between what can be perceived as "internal" and "external" marketing system contexts. Linked to condensed, simplified descriptions of Pharmacia Biotech's immediate organizational context emerging around a new technological invention launched in 1959, the marketing change episodes are put into

the movements of this context. Pharmacia Biotech's marketing organization emerges within the context of a pharmaceutical organization, successively uncoupling its own organization from other (pharmaceutical and diagnostic) product channels.

Chapter 7 extends the organizational context, linking the descriptions of preceding chapters to descriptions of how the Pharmacia Group and its companies become coupled to different parts of the context, sometimes leading to internal, intercontextual contradictions and tensions.

Descriptions and discussions in Part II thus move from the micro dynamics of a marketing episode (relating to the concepts of figure 3.3., p.70) to the broader, organizational network context, connecting each preceding chapter to the next when extending systemic and temporal perspectives.

In **Part III** lastly, we go back to our focal problem, the relationship between marketing change agency and structure in a moving context perspective. We relate to the the three concepts and temporal perspectives - concurrence, transition, evolution - arguing for the need to see the links between agency and moving structure and between marketing change and stability, as a matter of handling concurrently different aspects of the past, the present and the future. Chapter 8 discusses the case from the three temporal points of view, arguing that change agents concurrently interact with structures connected to the present (concurrence), to the immediate past and future (transition) and to the long-term history of the context (evolution). In chapter 9 the discussion continues, taking its starting point in the relationships between time, stability and marketing change. Chapter 10 sums up some of the theoretical and managerial lessons and issues. It is concluded with a description of method (complementing the list of interviews and secondary material provided in the case study book), including a discussion of some of the methodological lessons of the study.

PART II

**THE EMERGENCE AND STRATEGIC CHANGE OF A
BIOTECH SUPPLIER -**

CHANGE EPISODES IN A MOVING CONTEXT

4 A Marketing Change Episode in Context: The After Sales Service Episode

How does a strategic industrial marketing change episode emerge and change within a moving context? With the case narrative and the introductory discussions of Part I as background, we move into elaborations of the "micro dynamics" of industrial marketing change processes. Building on the accounts of Pharmacia Biotech's reorganization processes between 1986 and 1995, we start by looking into some of the micro dynamics of one of the marketing change episodes, the after sales service episode. Going back to Figure 3.4. we start again and take a deeper look at one particular change episode, successively extending both temporal and contextual focus in the three coming chapters, 5-7.¹

Judging from the case narrative, all marketing change episodes are fundamentally dynamic; there is over time both change and stability in contents, processes and temporal profiles. Central micro elements of marketing change episodes are addressed in this chapter: the interactional processes of change agents (e.g. a task force group), the realization elements of the processes, the contents, change agents' perceptions of and actions on structural ambiguities, and time elements of change episodes. Some of the basic concepts presented in chapter 3 are more deeply addressed.²

The chapter contains some arguments, building on insights from the after sales change episode, and connecting to the concepts describing micro dynamics of marketing change episodes. For example, in connection with marketing change: 1) the change and stability

¹To repeat, in chapter 5, aspects related to "concurrency" are discussed, putting the after sales service episode in the context of the three other change episodes described. In chapter 6, the structural and temporal focus is extended, putting the episodes in their moving, internal "channel" context. In chapter 7, the focus is further extended, describing the immediate organizational context of the Pharmacia Group in which Pharmacia Biotech is embedded.

²In this chapter and in the coming chapters of Part II, some new empirical evidence can be presented which is not included in the case narrative. In addition, some new theoretical concepts will be brought up in the chapter, when refining the discussion on interactional processes; mobilization/motivation, interaction and structuring. These will mainly be collected from: Turner, J., *A Theory of Social Interaction*, Stanford, CA.: Stanford University Press, 1988

of change contents are intimately linked with the dynamics of marketing change agents' interactional processes, 2) there is a mutual, causal relationship between the interactional processes and steps in the realization process; mobilization and interaction can be important for actually acknowledging the "relevant" change problem and context for this problem, 3) the important step of stabilizing change contents is connected to the emergence of more stable and structured interactions, 4) changes in elements of the temporal profile of an episode will have repercussions on change contents and processes, and 5) the content and process dynamics of a change episode can only partly or temporarily be protected from the contents and processes of other change episodes.

The after sales service episode, like any marketing change process, is best understood as a contextually located process with no clear beginning or end.³ Context and continuity shape the starting point in which change processes emerge, falter, and proceed.⁴ Discussions on the contextual embeddedness of the single change episode both starts and concludes the chapter. We start the chapter by looking at how the focal change episode emerges 1989-1992 from preceding episodes, and how it develops into new changes after 1992. A brief discussion of the change episode's interactions with change rationalities of concurrent episodes 1989-92 ends the chapter and provides the link to the next, in which the three other focal change episodes of the narrative are added.

IN CONTEXT; LINKS TO PRECEDING AND SUCCEEDING CHANGE EPISODES

The contents and processes of a strategic marketing change episode reflect actions connected to the past, the present and the future. The merger episodes from 1986 and onwards leave some of the most significant impressions on the new marketing change episodes arising after 1989. The merger processes transform into a major distribution and logistics change project, a regionalization of the marketing organizations, and a redirection of the after sales service operations, among other change processes. When the after sales service episode takes off as a formal project, the contents and the processes of the change episode encompass elements strongly linked to the change processes of the BTG-LKB merger.

While many of the emerging and shifting contents and processes around 1990-91 become immediate responses to contextual changes of the past - both building on and breaking with the BTG-LKB merger - and very short term responses to the present (e.g the Volvo-Procordia deal and the subsequent Biosystems venture), after 1992, the contents and

³Pettigrew, A., *The Awakening Giant*, Oxford: Basil Blackwell, 1985, p. 453

⁴Ibid, p.455

processes, including plans and time horizons, become more future oriented. The creation of a self contained position for the new company Pharmacia Biotech, is an important factor leading to a stabilization of contents and processes. The planned future states of the after sales operations become more important, as the task force group is able to break with history, extend the time horizon and act with both short and long term perspectives.

A new central "actor" (a central HQ division) emerges from the problems of the merger in the after sales service episode. The marketing change process needs to be connected to the formation of a "new", formal actor:

The HQ, Uppsala based, Instrument Service support unit, merged from the two LKB and BTG units, develops ideas for a project for coping with many of the problems from the merger, and for improving the control over the activities. The idea is given project status, and soon the Instrument Service unit is given the status as Division with profit responsibility. The divisional management group, including a consultant, forms the core of the new project task force group, becoming the central change agent. In contrast to other change episodes, the idea and project fairly rapidly turns into a formal actor, a Division, which subsequently separates out and implements a specific change project. And in contrast to other episodes (e.g the distribution change episode), the After Sales Division does not have to later handle an emerging, competing/complementary actor and after sales project at the new regional level.

The actual birth processes - when, where, why, how and linked to whom - of new marketing changes can be important determinants of their subsequent evolution. In this case, the strategic change episode emerges within the complex set of company merger processes, which in turn are part of a set of similar merger processes involving the Pharmaceutical and Diagnostics Divisions of Pharmacia, claiming the attention of the whole corporation. The other Pharmacia Divisions are concurrently integrating actors from their own contexts, extending the inner context when incorporating new companies in the group. The episode emerges also in the context of a rapid business and economic downturn in the biotech supply sector. There are levelling sales, and there are reduced and more concentrated grants to biotech research in 1986 and onwards, driving and affecting the change episode. The early development of the after sales service episode is thus partly explained by the way it parallels intensified rationalization processes. Establishing more aggressive and profitable after sales operations, while handling rationalizations and lack of internal efficiency after the merger, is the contradictory situation from which the episode emerges.

Links to the BTG-LKB merger

The origin of the after sales service episode can be traced to the context of a merger process, where one of the central elements from late 1986 and onwards is an emerging,

stable focus on horizontal mobilization of product company units and of marketing subsidiaries in the fusion of two companies. The internal R&D, production, administration, market support, distribution divisions and the local subsidiaries of the two companies are mobilized and merged horizontally, with the effect of *less stable interactions in the vertical contacts* between the actors of the joint BTG-LKB product companies, local marketing subsidiaries and customers. The after sales service change processes and contents emerge within the context of stable attention directed at "horizontal" mobilization and interactions between internal biotech units, while less attention is being directed towards the "vertical" interactions and mobilizations between units of the new company, Pharmacia LKB Biotechnology. When the plans for a change of service operations and a new After Sales Service Division are outlined in 1989-90, the new company is almost in the process of stabilizing an organization of weak and very heterogeneous vertical channel contacts and interactions between production companies and central support units, the marketing subsidiaries and the end users. (Figure 4.1)

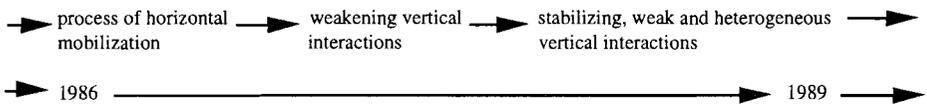


Figure 4.1. Emerging processes of weakened vertical, internal interactions

The genesis of the after sales service episode is within a new emerging internal context where the fusion process is creating an almost doubled organization of internal resources and activities, but heavily dominated by Pharmacia routines and operations. From 1987 and onwards, processes of rationalization begin; change processes and change contents of the merger process become focused on the needs to reduce overlapping resources. The downturn in the whole biotech sector accentuates the need to further reduce the internal resources: product portfolios, production units, R&D departments, market support and administration units, local sales organizations and more. In this process, and as a result of the focus on horizontal merger processes, the links and vertical coordination between R&D/production, distribution and local sales and marketing activities successively weaken.

The decision to establish a new After Sales Service Division after 1989 appears as one step in a chain of events in the instrument service organization: a successive reduction of internal service resources following the first merger steps, and increasingly isolated service activities only loosely coupled to other activities in the R&D, production, distribution, sales and use chain. The change actions from 1989 and onwards also emerge from a successive chain of new problems in the service activity structure resulting from the merger process: warranty service activities are successively being transferred back to

the central service unit, internal information exchange and administrative service routines are becoming increasingly heterogeneous, and BTG dominated subsidiaries begin to centralize the local service activities and resources to the subsidiary organizations. The local operational heterogeneity increases, leading to central attempts to standardize activities and routines throughout the period 1986-1989. New problems have to be coped with, leaving little room for implementing and stabilizing new, centrally developed, service routines.

Preceding the decision to create a new division is a chain of events to change the internal, "vertical" interactions and relationships between service units and between service units and other divisions and units in the organization. Apart from the defensive mobilizations to stop the emergence of local, undesirable routines, the period is characterized by the internal motivational and mobilizational attempts by the central service unit and task force in Uppsala to change the behaviour of the local sales and service units, and to motivate other central units, raising the internal awareness of necessary changes. Due to the merger problems, the internal interactions between local and central service units and between local service units and users are beginning to weaken. During the three years of the merger process, the overall weak and non-regular interactions in the "vertical" (and in "horizontal" contacts, e.g. between sales and service units) contacts are beginning to stabilize. When the management decision is taken to look over the after sales operations in 1989, it is part of the general experience (by sales, administration, management, distribution etc.) in the new company, that something has to be done about the persistently weak "vertical" contacts, interactions and information routines. The events of 1989 and onwards constitute a "natural" continuation of attempts to break emerging undesirable patterns in the way service activities are organized, resources are used and involved actors interact.

Links to succeeding, organizational changes 1993-1995

The situation towards the end of 1992 is different. The after sales service changes are now part of other, ongoing processes of stable change. The service operation changes are becoming an integral part of mobilization processes pointing towards a totally new, regionalized, and key account based, marketing system. Both vertical and horizontal contacts in the biotech channel organization are becoming more regular in the general decentralization (regionalization) of marketing activities and resources. The service support changes become part of the emerging focus on key account adapted interactions, with a new intermediate regional market organization which in 1993-94 result in reorganizations (from three companies to four product divisions). Towards the end of 1992, the after sales changes become part of the acknowledgement of new problems; how should the three remaining companies of Pharmacia Biotech be reorganized in order to

become better adapted to the requirements of the key customers, e.g. the industrial, pharmaceutical companies? The contents of the strategic change of the whole new company Pharmacia Biotech are altered, moving towards a future, regionalized, key account based biotech organization, requiring new interaction patterns and new activity structures. In this situation, the internal interactions between central and local technical service units, and to the customers, are becoming more regular and frequent; many of the problems of initial mobilization have been overcome.

The after sales change episode 1989-1992 is part of ongoing change processes with basically arbitrary boundaries. It emerges, transforms and dissolves, with no clear beginning or end. Its emergence partly determines its subsequent development. A central determinant of its emerging contents and processes is the fact that it evolves in a long period of multiple organizational changes after 1986, succeeding an even longer period of stable, incremental growth.⁵ For the central instrument service unit, the origins of the change agent, and the service change contents and processes, are placed within the context of an *extended* period of radical change, starting with a merger process and continuing with many radical changes of the 1989-1992 period. Many of the change contents emerge from the merger process: processes to change the interactions and norms of the internal vertical governance structure; attempts to start interaction with other functional units; rationalization and reorganization of internal service resources; and internal vertical coordination of service activities. Change contents and change processes are adapted to the situation of having to break with prior changes while implementing new. Later, during the peak of change 1990-1992, change contents and change processes are adapted to the situation of having to adapt to concurrent changes while implementing new.

CHANGE PROCESSES AND CHANGE CONTENTS 1989-1992 - STABILITY AND CHANGE

The contents and processes of the emergent strategy from the after sales change episode are partly determined by intended organizational strategies becoming unrealized strategies during the course of the marketing change project, e.g. as a consequence of the interactions with the Biosystems venture and regionalization project.⁶ Still, in the single

⁵This is in accordance with Pettigrew (1985) who states that organizational changes come in packages, where tradition-bound periods are punctuated by a non-cumulative revolutionary break. (In: Pettigrew, A., *The Awakening Giant*, Oxford: Basil Blackwell, 1985, p. 446, building e.g. on Miller, D., "Evolution and Revolution: A Quantum View of Structural Change in Organizations", *Journal of Management Studies*, 19(2), pp. 131-151, 1982)

⁶Adopting the terms used by Mintzberg (1978): intended, deliberate, unrealized, emergent and realized strategy. (In: Mintzberg, "Patterns in Strategy Formation", *Management Science*, Vol. 24, pp. 934-948, 1978)

change episode there emerge elements of an intended strategy turning into a deliberate and realized strategy.

A stable, central content of the change episode is the introduction of long-term service contracts to customers. It remains an important part of the intended, deliberate and realized strategy to establish routines for developing long-term relationships with customers. Long-term service contracts are introduced through strong proactive actions by the management of the new After Sales Service Division. Other parts of the new overall after sales strategy have elements of both unrealized strategies (e.g. various internal and external marketing projects for after sales services) and successively emerging strategies (e.g. the emerging projects for spreading and implementing standardized service management programs after 1992). The joint actions in the distribution project, the regionalization program, the quality improvement programs, and more, together with the after sales project group's efforts to improve the reports from and contacts with the market subsidiaries, lead to a new emerging strategy for the internal contacts and relations. New rules for economic calculations, budgeting, financial reporting and continuity in the contacts between organizational units in the vertical channel come to have an overall impact also on the central After Sales Service Division's internal interactions and relations. The momentum gained in the interactions with other changes helps stabilize new interactive routines.

The actions of the task force group and new division are not completely determined by existing organizational structures. The magnitude of the total marketing reorganization and the temporal extension contribute to the unpredictability of effects and repercussions of different changes. The change agents develop some measure of autonomy.⁷ During the period 1989-1992, they are partly determined by, partly going against the current of existing and emerging structures and norms. This duality is mirrored in the process dynamics, in the mobilization/motivational, interactional and structuring of interactions, of the episode.

Process dynamics: interaction processes in the after sales change episode

During the course of the after sales service episode, the mobilizational, interactional and structuring processes are altered and adapted. To sum up some of the major steps in the episode:

⁷Using the words by Sztompka (1993), they develop "some relative independence of the dynamic social context in which they participate". (In: Sztompka, P. *The Sociology of Social Change*, Oxford: Blackwell, 1993, p. 215)

Motivating/Mobilizing:

The task force group of the after sales change episode has a long period of motivation and mobilization before significant change actions can be observed. Three joint subsidiary meetings are important steps in the mobilization process, but it is only after the third meeting that any considerable change effects can be observed. The mobilization process is difficult due to some uncertainties about who to mobilize: subsidiary managers, local service managers, local sales managers, HQ managers, HQ product division managers, or whom? The heterogeneity of the subsidiary organizations, the lack of established internal contacts of the after sales task force group, the concurrent mobilization of local and central product, sales and distribution units for change, are important factors hindering the mobilization process. Contextual changes (the Biosystems venture and the creation of a regional organization in Brussels) create an ambiguous situation; the central After Sales Division is instructed to mobilize a new regional after sales unit for the after sales change, but due to time lags and organizational ambiguities concerning the new intermediate Brussels organization, there is at the time no unit to mobilize. Motivating internal units to change behaviour in interactions with end users is difficult, due to established cost center norms and routines for the technical service operations; motivational processes are successively adapted to each specific local circumstance.

Interacting:

The actual interactions in the channel following the first mobilization to a joint after sales meeting become coupled to processes of sorting out who should be responsible for different marketing support activities, starting mutual role adaptations.⁸ Processes of framing⁹ the interactions are started, successively excluding local and central management units (which initially are needed to legitimize the change project) down to the central and local after sales units. During the course of the change episode, the new After Sales Division has to interact sometimes intensely with the central BTG management group in order to legitimize the change, and to mobilize the latter to mobilize local subsidiary management into change actions in the local after sales operations (e.g. in Japan). Contextual changes during the change episode (the creation of Biosystems) force the task force group into tentative, coordinative interactions with units in other companies (Pharmacia Diagnostics, Biosensor, Deltec). The ambiguity of who to mobilize and interact with in the new vertical marketing organization escalates also as a consequence of the emerging regionalization process.

⁸In accordance with the discussions on interactive "role-taking" and "role-making" processes in social interaction contexts (e.g. Turner, R., "Strategy for developing an integrated role theory", *Humboldt Journal of Social Relations*, 7 (Fall/Winter), 1979, pp. 114-122). It is also discussed by Turner (1988) who states that: "Any analysis of interactional processes must now view role-taking and role-making as complementary dynamics of interpreting and signalling." (in: Turner, J., *A Theory of Social Interaction*, Stanford, CA.: Stanford University Press, 1988, p.90). In the course of the process, the After Sales Division (consciously and unconsciously) has to change its own role and self-conceptions. The role-taking actions become open and less reactive during and after the joint subsidiary meetings, as the task force group increasingly becomes aware of the diffuse role(s) that other units, e.g. subsidiaries, implicitly give the new division.

⁹Discussed e.g. by Goffman, E., *Frame Analysis*, New York, 1974, (elaborated on by Turner, J.(1988), *ibid*, chapter 7). During the course of the episode, the central After Sales Division starts interactive processes of "frame-making" and "frame-taking", i.e successively enclosing what local actors, interactions, subject matters (contents), and new rules should be part of the interactions when introducing the change.

Structuring:

The structuring of internal channel interactions follows the narrowing down of the change contents, and the related routinization of internal information exchanges is linked to two important events: the start of cost and sales reporting and the implementation of reporting routines concerning the sales of long-term service contracts to customers. Interactions are also structured by the introduction of new on-line information systems. The structuring and routinization is helped by the fact that the after sales related interactions can be framed and narrowed down. The introduction of a new standardized pan-European EDI system helps the process of routinizing the information exchanges concerning after sales matters. The new central division also develops more closer relationships with other HQ actors, including management groups.

Viewing the three processes separately, it is possible to relate the development of the change episode to the specific characteristics of its emerging mobilizing, interacting and structuring processes. Breaking down the interactional processes of the task force group in the change episode, each can be seen to encompass its own particular elements and characteristics. Taking a deeper look at the processes, these particularities can be discerned:

The *motivational/mobilizational processes* after 1989 emerge from the long row of attempts by the Instrument Service unit 1986-89 to mobilize central management and marketing groups into changing the whole organization's view of the service unit's role. The new Division's motivational processes from 1990 are at the outset circling around the lack of "group inclusion".¹⁰ It is necessary for the new After Sales Division to mobilize into interaction various vertically and horizontally related divisions/units (in the local market subsidiaries, in the central product companies, e.g. management, marketing production/R&D divisions). The mobilizational processes (and the problems to motivate and mobilize other units) are initially also circling around the lack of mutual, internal "trust", due to the uncertainty about the new Division's role, duties, responsibilities etc. This lack of trust, in turn, is coupled to the lack of established, continuous, internal interactions.¹¹ In this sense, the mobilizational processes evolve as a consequence of a sense of lack in regard to both group inclusion and internal trust. The intense motivational efforts based on discussions on potential gratifications (the large potential profits to be made in the service activities) are not enough. In addition, a major part of

¹⁰ Thus motivational/mobilizational processes are due to the *lack of* sufficiently close initial relations. Turner (1988) states in social interaction terms (borrowing the term from Durkheim, 1912) that: "a 'need for a sense of group inclusion' denotes the fact that humans will be perpetually mobilized to avoid the feelings of deprivation that come from not achieving a sense of being part of, and being implicated in, ongoing group activity." (ibid, p.59). In the same sense, the Division was initially not part of - or only loosely coupled to - the new emerging interaction context in the vertical marketing organization.

¹¹ Building e.g. on Giddens' discussion on trust (Giddens, A., *The Constitution of Society: Outline of the Theory of Structuration*, Berkeley, CA: University of California Press, 1984), Turner (1988) relates motivational processes to trust, or lack of trust: "When one does not feel part of an interaction context, then having trust in the predictability of others is difficult. In other words, the basic idea behind this 'trust' variable is that people must feel that there is a rhythm to interactions and that the responses of others will be predictable and patterned." (ibid, p.60). Explicit concerns about the lack of trust among the marketing subsidiaries are discussed by the task force group during the period 1989-92.

the time in the mobilizational processes is spent by the Division in changing its channel counterparts' self-conceptions, concerning their roles in the "new" service operations, and on constructing "accounts" of the situation ruling and of the new, planned situation.¹² This process of motivating other units to interact differently also becomes a network problem; it proves difficult to mobilize the local marketing subsidiaries before management units have been motivated to also take part in this mobilization. The sequential order of internal mobilization has to be changed.

When the more intense *interactional processes* start in 1992, they are built on emerging processes of mutual role-taking and role-making between the central and the local service units, with emerging ambiguities concerning the new regional units. The central Division successively becomes aware of the need to also adapt its own role in the new, vertical channel structure. In this process of becoming increasingly aware of the marketing subsidiaries' long dissatisfactions with supports from the central unit, the latter also has to adapt the conceptions of its own role.¹³ In the processes of developing the new channel roles (at the joint meetings), the central unit and the local units emit and interpret various claims and accounts of situations;¹⁴ about rights and duties, about the factual market situation, about customers, and more. These processes, however, are partly hindered by the ambiguities created by the concurrent reorganizations (the Biosystems venture) introducing also non biotech companies and units in the mobilization and interaction processes.

The first signs of *structuring of interactions* between the central after sales units, the regional, the local units and customers as regards after sales activities come late in the process. This is partly due to the lack of relationships during the intense mobilization processes and to the emergence of concurrent change episodes when the interactional processes start. After 1992, several elements connected to the structuring of vertical channel interactions can be observed.¹⁵ For example, with the ideas of introducing a key account system for interactions with customers, organizational units in the channel are given "maps" of typified, categorized interaction situations, maps which are beginning to be used and becoming a help in actually structuring the interactions, including those related to the service activities.¹⁶ Various "norms" about expected rights and duties in the channel are successively becoming more stable. It starts e.g. with simple norms as to what can be expected concerning the

¹²"One could hypothesize that this implicit "account" of what is real becomes a critical background feature of the given situation, which in turn, facilitates actors' ability to meet other (interpersonal) needs."(ibid, p.64)

¹³Building on Mead (Mead, G.H., *Mind, Self, and Society*, Chicago, 1934), Turner (1988) argues for this to be a central part of the interactional processes: "Mead's (1934) concept of role-taking is essential to any theory of interaction." (ibid, p.104). This can be compared e.g. with marketing channel theory, which by tradition has been mainly occupied with single channel actors' "role delineation" problems.

¹⁴Such elements of mutual claim-making and claim-taking, and account-making and account-taking are also part of Turner's (1988) discussion on social interaction processes.(ibid, chapters 7-8).

¹⁵Turner (1988), sums up some of these elements: "In sum, then, the structuring of interaction depends upon actors' mutual capacity to *categorize, regionalize, normalize, ritualize, routinize and stabilize* their responses to each other." (ibid, p.166)

¹⁶A "categorization" of interactions and situations emerges, based e.g. on the formalized key account plans. In line with e.g. Weber (1978) structuring can involve actors' engaging in the conceptualization of (standardized) types of action. (In: Weber, M., in *Economy and Society: An Outline of Interpretative Sociology*, Berkeley, CA.: Roth&Wittich, eds., 1978)

information exchange and reporting routines for services.¹⁷ This is also intimately connected to the fact that new emerging routines for information exchange, cost control reporting are becoming part of the more structured channel interactions after the Biosystems venture has been dissolved; the After Sales Division can include only biotech actors in the vertical channel organization.¹⁸

The task force group of the after sales episode had a long period of motivational processes. More than in the other marketing change episodes, it was striving to mobilize other internal units in order to change the interactions with the customers. Due to the initial, internal position of weak relationships,¹⁹ lack of internal trust for the new operational ideas, competition with concurrent mobilizations by other change agents, and difficulties to break with a long, stable (cost center based) interaction tradition, a large number of mobilization steps are needed to start the change process. (One of the points made by the task force group in the new After Sales Division when starting the plans for a change was that the group "had very weak relationships both with the other internal divisions and companies and with the local sales subsidiaries". It could be interpreted as a good starting point, but the perceived independence turned out to be a significant problem, when trying to mobilize other actors into change actions. When the change process took off, it proved difficult to penetrate the right levels in the counterparts' organizations; there were few or no preceding established interactions and relationships to build on.)

In the process, the task force group needs to start defining the major counterparts ("customers") to be directly or indirectly mobilized, or with whom interactions have to be adapted. Five central actors - both internal and external "customer" counterparts - and connected demands and expectations crystallize and are described.(Figure 4.2.)

Contradictions between counterparts' demands, and between counterparts' demands and the task force group's demands result in tensions and adaptations of mobilization processes, including the order in which counterparts are mobilized. Some counterparts are given more attention than others in the process (e.g. relatively little efforts are directed at mobilizing and interacting with the dealers). The motivational processes, sometimes

¹⁷About the complex concept of "norms" (central also in marketing channel models), Turner (1988) stresses its dynamic properties in the structuring of interactions:"I want to represent the concept of norms as a verb - that is, as an active dynamic process, rather than as a noun. Yet, the fact that I convert the term 'normalize' into the noun 'normalization' forces the recognition that people do indeed create norms that appear to be, in Durkheim's words, 'a thing', limiting options and circumscribing conduct. This 'thing' is transformable....", (ibid, p.158).

¹⁸Building on Giddens (Giddens, A., *The Constitution of Society: Outline of the Theory of Structuration*, Berkeley, CA: University of California Press, 1984), Turner (1988) states:"Anthony Giddens (1984) has been the most perceptive of contemporary theorists in recognizing that routines are important for the reproduction of structure as well as for meeting people's deep-seated need for ontological security and trust (that things are as they appear and that they are predictable).", (ibid, p.164).

¹⁹Interview with Divisional Manager, February 1992

intense, continue after 1992, integrated with and complementing the emerging, and later structured, interactional processes.

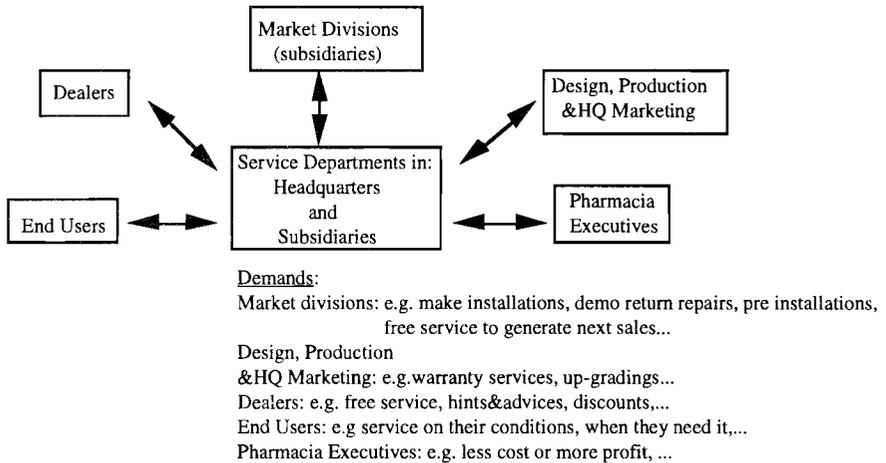


Figure 4.2. Emerging, major counterparts to be mobilized and motivated. (Source: After Sales Division, 1992)

Interdependencies between mobilization, interaction and structuring processes

To sum up, significant characteristics of the interactions of the change episode come from the fact that the change agent, the task force group of the After Sales Division, has to start the mobilization from a situation of very weak internal relationships. Neither subsidiary management, service and sales units nor other HQ divisions have any former experience of being mobilized by a service division into interactions and changes concerning after sales matters. The mobilization process is also hindered by the fact that local service units have developed very heterogeneous and localized interactions with the customers; there is resistance among local subsidiary units to being mobilized for a reorganization of long structured interactions with customers. In the subsidiaries where specific traditions have been established, the mobilization for change by the central after sales unit necessitates several direct meetings (e.g. in USA).

The first joint meetings and the start of new HQ-subsubsidiary interactions influence the motivational processes. The meetings are not set up only for the purpose of forcing a new channel role on the subsidiaries. The meetings result in the two counterparts being able to discuss a new set of mutual expectations: what can the marketing subsidiaries expect as support from the HQ units and vice versa. Even during the first meeting, there begins a process of mutual role-taking and role-making, which in turn is important for mobilizing the subsidiaries into changing their interactions with the customers. It becomes a way for the new central Division to demonstrate trustworthiness. The first joint meetings and the

direct visits to the subsidiaries (in some cases coupled with joint meetings with local, important customers) are also ways of breaking with established, structured interactions. A dominant aspect of these interactions - set during the preceding period of the BTG-LKB merger - has been the central instrument unit acting as sounding board of complaints and receiver of instruments from the subsidiaries concerning e.g. warranty matters.

Later during the process, the continued mobilization and motivation of the subsidiaries to change interactive behaviour with customers is helped by the emerging basis of more structured interactions and exchanges. This structuring is also driven by the concurrent structuring processes in the key account/regionalization and distribution projects. Information and warranty product exchange routines are stabilized. New profit center based norms for the activities and interactions are beginning to stick in the marketing organization. The new norms also encompass the new ideas linked to the categorization of interactions with customers; intense key account interactions versus less intense non key account interactions. Changes in the after sales activities are helped by the ongoing framing and specialization of interactions in the subsidiary-customer relations. Later, further changes in the service operations are also helped by the fact that the ongoing role-taking and role-making processes in the HQ-region and region-subsidiary relationships are becoming more structured and stable. A new division of work based on new structured interactions and a new set of marketing roles in the vertical channel is beginning to stick after 1993.

In a seeming paradox, the intense motivational and subsequent interactional processes during the period 1991-1992 - when the future of the project and its content are still very uncertain - seem to be replaced by more structured, but less intense, interactions, at the time when the project is becoming institutionalised in the organization.²⁰ The more regular, internal interactions save energy; the service division can direct energies to fine-tune the use of service resources, the coordination of activities, and the differentiation of time spent on different service activities. The routines and structured interactions also allow the division to redirect attentions and mobilization processes to new matters.

Interdependencies between interaction and realization

Evidence from the after sales change episode indicates the winding path to be taken when a marketing change has to move from a development of concern to becoming realized and

²⁰Turner (1988) states: "I would hypothesize, then, that the more actors can mutually agree upon roles, frames, stages, rituals, accounts, and claims, the less the interpersonal energy and time required in the interaction. Moreover, the more these (interpersonal) practices can lead to regionalized, categorized, normatized, ritualized, stabilized, and routinized structural patterns, the less the interpersonal energy and time expended in the interaction.", (ibid, p.183).

stabilized as a marketing change in the organization. The stages in the realization process do not proceed in a simple, straightforward and sequential order.

New concerns arise continually during the process, changing also the contents of the change episode over time. The acknowledgement and understanding of problems change over time, often as a consequence of the fact that the task force group interacts with other units, increasing their own understanding of the particular contexts in which the changes are to be implemented. Planning and acting procedures develop continually. When the proactive actions take off after 1992, the intensity of the planning activities levels out. The stabilizing of change processes comes late; after the dissolution of the Biosystems group, the Division can acknowledge the first signs that new after sales service routines concerning a limited set of activities (service contract sales, cost control reporting, information exchange) are beginning to stick.

There are apparent links between the interaction processes and realization processes in the change episode:

The first stages in the change episode are coupled with an apparent circular relationship between the mobilization/interaction and the development of concern/acknowledgement and understanding of the problem. Mobilizations and new intensified interactions (e.g. during the direct visits to subsidiaries and during conferences) lead to a stabilization of concerns and an increased understanding of problems (e.g. the need for improved communication and information exchange routines) but also to the emergence of new concerns and acknowledgement of new problems (the need for improved and standardized pricing procedures, service management routines, warranty routines, and the handling of the heterogeneity of local subsidiary-customer interactions). This, in turn, leads to intensified mobilization and interactions (new HQ-subsidary meetings) and to a redirection of interactions to other units (product divisions, management groups). Additional problems and concerns arise in these interactions, but as the acting starts, the concerns, the problems and the interactions, are successively framed and narrowed down. Everything cannot be attended to at once and only a limited set of individuals and units (mainly local service units) can be engaged in the actual reorganization process.

As more regular interactions between involved units start, the acting also takes off and the continual planning procedures are altered; parts of the planning procedures are integrated in the new interaction processes being transferred from the HQ level to the HQ-subsidary interactions. The change actions (acting) on acknowledged marketing problems (e.g. sales of long-term service contracts to customers) come to spotlight the needs for altered interactions; processes of role-making and role-taking are started (stating new formal divisions of work, stating mutual expectations) and the framing of internal interactions (e.g. deciding who should have contacts with whom in the channel concerning different

aspects of service support activities like contract sales, warranty matters and technical information exchange).

These new interactions support the stabilization of a focused set of change contents (service contract sales, internal information exchange, service cost control reporting) and a structuring of the interactions through routinization (more regular service reporting routines), the setting of new norms (a "profit oriented", "aggressive" view of the service support activities, and replacing "new product sales orientation" with a focus on "long-term, stable relationships with key accounts"), and the stabilization of information and resource transfers (a 24 hour on-line service bulletin board, warranty product flows, spare part flows, instrument service manuals). The structuring of interactions and the stabilization of change contents successively lead to decreased direct interaction between individuals; many of the interactions can be replaced by standardized, on-line information exchange routines.

The links between the interaction and the realization processes for the after sales change episode are made more complex by the links to other ongoing change episodes and contextual changes. The regionalization and Biosystems episodes partly redirect interactions to a new "channel" organization (Brussels) and to units in other companies (Pharmacia Diagnostics, Deltec, Biosensor, Wallac). New concerns and problems arise and the ongoing actions and the stabilizing of change actions are partly interrupted. After the restart of the regionalization with the new focus on local subsidiary-key account interactions, the after sales project is supported in the process of stabilizing the long-term interactions with customers (contract sales), and framing and structuring of the local interactions with customers (new local sales organizations adapted to interactions with key account versus non-key account customers).

To sum up, there is a mutual, causal relationship between the interaction processes (mobilization, interaction, structuring) and steps in the realization process (the development of concern, acknowledgement and understanding of the marketing problem, planning and acting, and stabilizing of marketing change). One important link, obvious during the first mobilizational processes, is apparent; the development of concerns and the acknowledgement of marketing problems by the task force group are changed, deepened or refined during the first mobilizations. That is, knowledge about the "relevant" change contents is enhanced only after the change agent has come in direct contact with local marketing subsidiaries and their contexts. Interactions precede acknowledgement of problems and marketing change contents.

A second important link concerns the structuring of interactions and the stabilizing of change. In the after sales episode there is a strong mutual relationship between the two. The stabilization of service contract sales is made possible by the introduction of more regular routines, information exchange and contacts in the vertical channel. And vice

versa, by stabilizing *one* focal change content, service contract sales, the division is able to link it to the introduction of more structured and stable interactions and exchanges, concerning also other matters.

The observations point to a dynamic relationship between the processes and the actual contents of the change episode. When being realized, the episode's contents are dynamic, showing elements of both stability and change.

Content dynamics - change and stability in marketing change episode contents

Every marketing change episode in a complex industrial context is subject to reformulations, to successive alterations of the contents of change. New concerns and problems arise during the course of the process. They can parallel an already stabilized change content. Sometimes the new emerging change contents stop at the point of acknowledgement, or they are initiated, later discontinued, or alternatively, become new, stable change contents. Lifting out the focal change contents of the after sales change episode, the general dynamics can be observed; change contents are both stable and changing over time. In this particular case, new change contents are to a large extent added to the existing. (Figure 4.3.)

<u>1990</u>	<u>1992</u>	<u>1994</u>
Service contract sales	Service contract sales	Service contract sales
Charging of services/pricing	Charging of services/pricing	Cost control and reporting
Cost control and reporting	Cost control and reporting	New spare part policies
	New spare part policies	Internal marketing of service business
	Internal marketing of service business	Installation of new service management system
		Sales and service training
		Time studies and service efficiency programs

Figure 4.3. Stable and changing change contents (including only some of the major areas of change)

In some cases there are overlaps; a certain change content can be connected to two or several change episodes and change agents (the spare part activities, for example). The change contents of different episodes have both complementary and contradictory elements. The power distribution and hierarchies between actors and ongoing change processes determine interruptions, side tracks and returns to prior change contents in the process. When the after sales service episode during the course of its development interacts with the other ongoing change episodes, processes of internal mobilization, and implementation and stabilization of change contents are temporarily interrupted as attention is directed elsewhere. Later, attention can - as in the case of the partly interrupted attempts to introduce the sales of long-term service contracts - return to the original areas of concern. In this process, there is also embedded a successive refinement, clarification

and adaptation. More details about the change contents emerge. They develop from ideas to clearer conceptualizations. And they are adapted to local contexts.²¹

Part of the formulated change contents: emerging perceptions of the context

An important part of the successive formulation of change contents are emerging *ideas* about the context. The officially formulated and enacted change contents of change episodes reflect changes in perceptions about the context.²² The development of concerns, the acknowledgement and increased understanding of the problems and change contents, the planning and acting stages and the stage of stabilizing change contents can encompass both implicit and explicit views of the concerned context. Official plans emerging during the planning stage can thus contain explicit accounts of the context in which the change contents are to be implemented. Ideas about change contents blend with new ideas and conceptions about both the process and the context of focal changes. These ideas become part of the motivational and mobilization processes. Involved actors are not only introduced to new change contents when mobilized by change agents, their attention is also directed towards certain parts and aspects of the context. In Pharmacia Biotech's marketing plans, descriptions of the change contents of episodes signal new views of the context.

The customers constitute one of the most important parts of the perceived and formulated context in the after sales episode. The stable and changing contents - areas of concern - blend with a successively changing perception of customers and customer relations. Following the strategic plans of the 1980s, moving into the specific plans of the marketing change projects of the 1990s, a successive shift in descriptions of the customers can be observed in the descriptions of change contents. Distilling and separating out these internal descriptions emerging over time, changing formulations and perceptions blend with the formulated change contents.(Figure 4.4.)²³

Over time, the internal accounts and descriptions of the customers and customer relations (contact patterns, purchasing behaviour, service requirements) receive a more central and integrated position in the internal change content descriptions. (In parallel to this, more detailed and regular accounts of competitors' behaviour also emerge.) They become

²¹All three aspects are apparent in the process of implementing the service contract sales world-wide.

²²From a company perspective, this could also be observed in Pharmacia Biotech's emerging internal marketing change plans. The stable and changing change contents of different change episodes also signalled new views of the context. The customers constituted one of the most important parts of this perceived context. Following the formal market plans of the 1980s, moving into the specific plans of the various marketing change episodes of the 1990s, a successive shift in descriptions and perceptions of the customers blend with actual change content (and process) formulations. Over time, the internal accounts and descriptions of the customers and customer relations (contact patterns, purchasing behaviour, service requirements) receive a more *central and integrated* position in the internal change content descriptions.

²³Sources: internal market plans 1985, 1990, 1995

central parts in the process of "categorizing" interactions and relationships, maps to guide the channel actors in marketing change episodes.

	<u>1985</u>	<u>1990</u>	<u>1995</u>
<u>Customers:</u>	Laboratory customers Process scale customers	Academic, Health Care, Industrial and Govern- mental customers	Key Account customers Non Key Account customers
<u>Customer relations:</u>	No or few specifications of customers' behaviour	Specified accounts of customers' purchasing behaviour and service needs	Detailed descriptions and segmentations according to customers' behaviour, needs concerning regular contacts, importance for Pharmacia Biotech, etc.

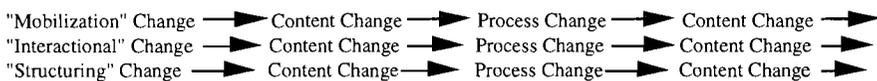
Figure 4.4. General differentiations and descriptions of customers and customer relations 1985-95 (excluding the finer segmentations that are part of the official formulations)

Content and process dynamics

Linking the content dynamics to the preceding discussion on the process dynamics, there is a circular relationship between aspects of the emerging marketing change contents and the processes of marketing change realization and interactions.

From the context dependency it follows that a marketing change episode, like the after sales service episode, follows its own logic when emerging and becoming stabilized in the organization. There is a mutual causal interdependence between changes in contents and changes in processes, but with a specific pattern for every episode. A modification of the enacted change contents will effect the process of change, which will have effects on the contents, but every episode will follow its own logics when interacting with the context.

Looking at it from the point of view of the processes of change, a change in the process will have effects on the contents, which in turn will require an adaptation of the process, and so on. The micro dynamics of interactions between individuals and groups are the *sine qua non* of the marketing change episodes. A change in any of the three leads to similar repercussions and needs for adaptations:



The after sales change episode in Pharmacia Biotech contains examples of all three types of patterns:

Mobilization changes immediately following the first joint After Sales Conference in Copenhagen result in a number of *direct contacts with and mobilization of* local subsidiary and service managers in a set of chosen subsidiary organizations. The direct contacts immediately change the ideas and perceptions of the local contexts, which in turn affect both the contents (the started project on service contract sales) and the started process (e.g. the planned speed of introduction of contract sales has to be revised). The new perceptions of local contexts include the acknowledgement of the heterogeneous, local contract sales traditions and related subsidiary-customer relationships and subsidiary-Pharmacia relationships (e.g. tight subsidiary-Wallac&Pharmacia Diagnostics relations in France) that have been established. The mobilization results in partly revised change contents concerning contract sales (e.g. lowered ambitions concerning the contract sales levels (France), adapting already existing contract sales to the ambitions that they should enhance the creation of more stable customer relations (USA), adapting service contract sales to existing, established product sales (UK)), and in emerging, new change contents (e.g. implementation of a new standardized service management system). These revisions, in turn, result in a number of adaptations of both interactions (intensified or reduced contacts with a number of chosen subsidiaries, contacts taken with other Pharmacia companies for coordination, contacts with other BTG Divisions' sales and management), and the already started realization process (the speed of implementation of the process is slowed down, new concerns emerge, local contacts enhance the understanding of the "service contract problem", etc.). The new or intensified interactions result in further adaptations of the contents of the after sales change project (the number of change areas within the project grows, new change contents are added to the contract sales as "stable" change contents: implementation of a new service management system). These necessitate new interactions (new direct contacts between HQ and subsidiary units, now including also top management groups).

Starting with *interactional changes*, it can be observed how the first direct mobilization, the HQ-subsidiary meeting, immediately results in the start of interactive role-making and role-taking procedures. There is a need to start the process of establishing new channel roles and explicitly define the mutual expectations. The start of these interactive processes results in the emergence of a number of areas of concern which turn into new change contents complementing the already established change areas (improvements and reorganizations of a number of information exchange routines from the customers back to the HQ Division have to be added as focal change contents). These content modifications require adaptations of the change processes; there is a need for more intense direct interactions with the subsidiaries in order to be able to continue the role-making and role-taking processes and defining the new set of roles in the vertical organization. It is also acknowledged that improved information exchange in the whole vertical channel requires improved information for the HQ unit about the subsidiary-customer relations; a number of key customers are contacted and involved in the process (e.g. in Japan). This in turn, improves the knowledge of the established heterogeneity in the

after sales operations world-wide. The change contents have to be adapted to this situation; there is a need to take a step back in the ambitions to achieve a rapid standardization of the after sales operations. And the interaction changes continue. In order to achieve and spread results in this heterogeneous situation, attention and interactions are directed towards a smaller number of well selected subsidiaries, each with some particular strength in its service operations.

During the period 1992-93, there emerge more open attempts to *structure* the new HQ-subsubsidiary interactions concerning service activities, as compared to the previous period. The continuity of the contacts increases between the joint start-up meetings; information exchange and reporting routines become more regular. This also encompasses more open frame-making and frame-taking of the emerging interactions; as the legitimation of the new after sales service project and division is stabilized (involving management and product divisions), the more regular interactions can be narrowed down to the local sales units and the central division. An equivalent process is started in the subsidiary-customer contacts, as local subsidiary units begin to direct their contacts to different units with different customer contacts: sales, application service, technical service. The structuring of interactions leads to a narrowing of focal enacted change contents. With more routinized behaviour concerning information exchange and reporting, the strategic change can be focused on the contract sales activities. This in turn, allows routinization of contacts to be taken even further. New standardized information systems and service management programs are successively being implemented. The more standardized HQ-subsubsidiary interactions, in turn, enable the local organizations to direct attentions to the change contents related to the interactions with the customers, i.e. the key account customers, and the non-key accounts with more standardized contacts.

In conclusion, starting in the change contents of an episode, a modification can be more or less "internal", seen from the point of view of the defined episode and change agent. Change contents can be determined by processes and episodes elsewhere in the organization or network. There is constant interaction with the context, directing the change agent's attentions, interpretations, and subsequent actions.

CHANGE AGENTS AND CONTEXTUAL AMBIGUITY

Every marketing change episode embedded in a complex, moving context - and like here, being in the middle of a major marketing change - will be endowed with considerable ambiguity for the involved change agents. Ambiguity about the structure of the context can have effects on the actual contents and the process of the change episode. What is done and how it is done is affected by the perceived ambiguities, and by the chosen interpretations of the ambiguous, moving structures. The adaptation of change contents

with context, depends on the change agent's mode of coping with ambiguities about the latter.

In 1991, the after sales change episode and its task force group reaches the height of turbulence and ambiguity about the organizational context, embedded in the concurrent processes to regionalize the global net of marketing organizations and to implement the new Kabi-Pharmacia and Pharmacia Biosystems organizations. (The latter involving coordination of the biotech operations with those of six other companies.)²⁴ In the start-up phase (when starting follow-up activities after the first joint after sales service meeting) of mobilizing market subsidiaries to change their way of interacting with local customers, the Biosystems organization and the European regionalization are being introduced. There emerge a number of structural ambiguities related to the Biosystems organization:²⁵

We see a number of uncertainties about the new organization. As we now are starting to work with the market subsidiaries, there are changes in the way our local BTG and other Biosystems companies are organized and how they are reporting. It's difficult to be updated on the new structure, we are continuously in the process of changing it. We now have partial responsibilities for the after sales concerning some of the 6-7 companies. It's a complicated organization and situation. We don't understand why it is not looked upon from the customers' point of view. They will now meet partly different routines; Diagnostica and their local service units are cost center controlled, while we are in the process of trying to make our service units profit center driven. And with Deltec and Biosensor we are now several service directors that have to be coordinated....

Coupled to this, there emerge new structural ambiguities in the task force group concerning the structure of the new European marketing organization, reflected in adaptations of the after sales change process:²⁶

In June-July 1991, the new European organization was to be launched. This caused immediate interruptions for us. Now, the major part of marketing support was to be handled from Brussels. We were confused, because we had no counterpart in Brussels. It was a strange and frustrating situation. In spite of some internal resistance, we then continued to work with the subsidiaries. Despite the interruptions, we tried to continue our three main service projects...

As a consequence, parts of the change episode have to be adapted and reformulated. While the original ideas about the most crucial contents (sales of service contracts, improved information exchange and cost reporting routines, improve service management systems) remain, it is above all the change process that has to be redirected. Despite the fact that no regional, technical service unit - for a new Biosystems organization - has been established in Brussels, the mobilization and interaction processes are temporarily redirected from the subsidiaries to the new internal "channel" organization, the regional Biosystems unit in Brussels. Uncertainties about the status and structure of this new unit,

²⁴The seven companies that were to be coordinated in the new Biosystems Group were: 1. Pharmacia LKB Biotechnology, 2. Pharmacia Diagnostics, 3. Kabi Diagnostica, 4. Wallac Oy, 5. Sebia S.A., 6. Biosensor, and 7. Pharmacia Deltec.

²⁵Interview with Instrument Service Director, April 1991

²⁶Interview with former After Sales Division Manager, March 1992

and of the preferred future structure of vertical contacts between central, HQ organizations, regional office, subsidiaries and customers results in a loss of speed in the process and new areas of concern emerge.

While the uncertainty about the new regionalized organization will be handled partly by by-passing the new, emerging intermediary, the Biosystems organization becomes more problematic for the task force group to handle. Part of the ambiguity stems from the uncertainty about the future structure of contacts and coordination with the other Biosystems companies; Biosystems is moving step by step from a loosely coupled holding company structure towards becoming a new operative unit with possibly stronger needs for internal contacts and coordination. The after sales task force group's interpretation of the strength and structure of the Biosystems organization is endowed with ambiguity also because of the emerging elements of internal competition between Biosystems companies due to lack of resources:²⁷

We are now working towards the subsidiaries in a complicated situation. Sometimes the customers (of several Biosystems companies) are the same. But they are meeting different situations, depending on the fact that Diagnostica, for example, are still cost center controlled. Despite Biosystems, we in BTG are now competing internally for some of the service personnel. As cost center, Diagnostica is able to offer them more...

The uncertainty about the future relations within Biosystems remains. Despite technological similarities, for example, there are no, or only weak, internal relationships between the Biosystems companies. The After Sales Service Division partly redirects the interactions, as a consequence. Tentative contacts are taken with other, instrument based companies in the Biosystems group (Deltec, Pharmacia Diagnostics, Wallac, Biosensor), to coordinate after sales changes, but are given up, due to contradictory views and operations: Pharmacia Diagnostics is still firmly operating cost center-based service support activities, contrasting sharply with the emerging changes in the after sales service episode of the biotech units.

Another type of uncertainty at the time has to do with the structure of the customer portfolio and with the local subsidiary-customer contacts, concerning technical, follow-up service activities:²⁸

It is complicated, while we have no established relations with the subsidiaries or inwards, with other division in the central organization. And there are uncertainties about the customers that we now are starting to work against together with the subsidiaries. There is a lack of information. We think that many subsidiaries have good contacts with their customers, but we now lack detailed information about the geographical spread, the structure of the installed base, who our key customers are, how every single customers uses the instruments,...

²⁷Interview with Instrument Service Director, April 1991

²⁸Interview with After Sales Division Manager, October 91

As a consequence, new internal contacts have to be taken with the central, biotech sales and marketing support divisions and with certain chosen subsidiaries for information about different types of customers, their purchasing behaviour and service needs. A result of efforts to cope with the structural ambiguities and the uncertainty is that the Division and its task force group direct the interactions towards certain internal counterparts.

Ambiguities about the internal structure become a way of coping with structure. Actions in a change episode can thus be related, not so much to the structural changes as such, but to the change agent's *interpretations* of the emerging and changing structures.²⁹ Hence, marketing change agents' information about structure and structural changes (which in parts can be connected to their relations in the organization) guides the interpretations and their subsequent directions of attention, leading to adaptations of contents and processes. Driven by uncertainties about the emerging marketing channel structure, change agents can cope with the structure and lack of information partly by both stabilizing existing interactions and by redirecting interactions, using interaction and communication to decide the relevant context to continue to work in.³⁰

Via interaction processes, marketing change agents seem to be able to use and exploit, ambiguity for unambiguous ends:³¹

-Ambiguity about structure leads change agents to avoid and circumvent that part of the context; by directing mobilizational and interactional processes elsewhere, e.g. to more stable and structured parts of the organization.

-Ambiguity about structure can lead a change agent to mobilize and interact with actors in that part, in order to clarify and influence the new, emerging structure.

-Ambiguity about structure can lead a change agent to reduce it by sitting it out, continuing ongoing interactions, waiting with the mobilization of new internal units until the organizational context has become more structured.

While the interactional processes can lead change agents to become aware of new contradictions and uncertain structures, they can concurrently be a way to cope with ambiguity, trying to exploit it in order to reach unambiguous ends. *When* they are perceived and acted on affects the process.

²⁹In accordance with March (1988) who states about ambiguity about interpretations: "In short, decision-making is a highly contextual, sacred activity, surrounded by myth and ritual, and as much concerned with the interpretative order as with the specifics of particular choices." (In: March, J., *Decisions and Organizations*. Oxford: Blackwell, 1988, p.14).

³⁰March (1988) states: "Ambiguity about interpretation allows communication to evoke more than a communicator knows...Interpretation, not choice, is what is distinctively human.", (ibid, p.15)

³¹In accordance with March's (1988) idea that: "Understanding these ambiguities is necessary not only for understanding and predicting organizational choice behavior, but also for improving it....Such strategies are characteristically ways in which clever people can exploit ambiguity for unambiguous ends.", (ibid, pp.14-15)

ADAPTATIONS OF THE TEMPORAL PROFILE

When a particular episode is performed, the timing in sequences of events, is an important temporal aspect determining the impact and development of the change processes and the actual change contents. Elements of the temporal profile and the temporal position, the timing, of the after sales change episode (in the middle of other marketing change episodes and a major fusion process) are important determinants of the continual adaptations of the episode's change contents and change processes.

Changes in the temporal profile

Adaptations to contextual changes during the course of the after sales change episode - e.g. the Biosystems venture and the regionalization - require adaptations of *sequential structures*, both of the planned order in which change contents are implemented and of the order in which actors in the marketing organization are to be mobilized.

It is one of many changes in the temporal profile of the episode. Adaptation of one element of the temporal profile can have effects on other elements of the profile. And as in the after sales episode, when the sequential structure is altered it has effects on other elements of the temporal profile: the alteration *extends the duration* of the episode, the *speed* in the implementation process slows down, and the planned for *linearity* of implementation needs to be altered. During the extended duration of the change episode, the context changes; the Biosystems venture is dissolved. Due to this, change agents can change the mobilization processes and concentrate the change to internal biotech actors. This also helps to increase the speed of the implementation process and to stick more easily to the planned linearity and new sequential structure in the implementation of change contents.

Every change episode develops its own characteristics, its own particular way of handling change and stability in the temporal profile:

The rates and the scope of interconnected changes in the after sales episode in the period 1990-1992 leads to an increasing non-linearity - many stops, reversals and new beginnings - in the attempts to implement after sales changes. After 1992, and the decision to establish Pharmacia Biotech, the linearity and the temporal stability seems to increase. The continuity of the change processes becomes more obvious.³² For the After Sales Division the predictability increases; change contents (service

³²In a process perspective, the term "continuity" seems here more appropriate than "stability". Giddens (1979) states: "To speak of social stability cannot involve abstracting from time since stability means continuity over time." (In: Giddens, A., *Central Problems in Social Theory*, London: Macmillan, 1979, p. 199)

contract sales) can be stabilized and the trend of continual extensions of the duration and of reduced speed in the change process can be broken. The After Sales Division after 1992 is taking the first steps to implement new stable temporal characteristics as part of the emerging structures. Reporting and information exchange for the technical service activities become stabilized as new routines are introduced, based on new stable sequential structures, predictability and repeatedness. The apparent non-linearity of the early stages of the after sales change episode and the way it is succeeded by an increased continuity, predictability and speed in the process in 1993 depends on the fact that other change processes in the context are stabilizing.

New stable *time functions* are being introduced in the internal organization and operations, creating momentum also for the after sales episode. For example, the *differentiation* of time allocations in the regionalization and distribution projects (towards key accounts and other customers) supports the introduction and stabilization of service contract sales in the after sales episode.

Timing of the after sales episode

Every little step of action in a marketing change episode will be temporally positioned in relation to a number of other actions and episodes in the context. The positioning of actions in wider sequences of actions is a central facet of the temporal profile and an important determinant of the contents and processes. The problem is that there will always be trade-offs and paradoxes involved with timing. Depending on time perspective and on contextual focus, actions can be both late and early:

In a broader industrial, biotech supply context, the after sales service episode comes late. A number of BTG's main competitors in the industry have already developed more sophisticated service operations, including service contract sales. The contraction and "industrialization" of the biotech supply industry has also started much earlier, escalating after the mid 80s.

In a more narrow contextual perspective - viewing the episode from the history and development of the Pharmacia Group - the venture comes prematurely in some respects. In the strong "academic", R&D culture and background of Pharmacia, the focus on services is a major step towards "industrialization". When the first attempts to change the service operations are made - already during the LKB-BTG merger process - there are signs that the time is not yet ripe for the change.³³

In an even more limited structural and temporal perspective - viewing it from the point of view of the many concurrent changes in Pharmacia Biotech 1989-1992 - the episode comes both early and late. Early, in the sense that if the many changes associated with the new key account processes after 1992 had been implemented first, it is likely that the after sales episode could have gained momentum in the

³³Pfeffer (1992), suggests considering strategies associated with timing of actions in organizations, that one important timing strategy concerns "the importance of intervening when the time is ripe." (In: Pfeffer, J., *Managing with Power*, Boston: Harvard Business School Press, chapter 12, 1992, p.227)

implementation process. It is late in the sense that many change contents of the episode have not yet been stabilized in the organization as it starts to be affected by the other change episodes; the distribution, regionalization and Biosystems changes. Reduced to a very narrow time and contextual perspective, the implementation of specific change contents can also be late and early in the process.

Another central aspect of timing concerns *delay* and *waiting*.³⁴ In the after sales episode (as well as in the distribution episode), change agents wait with implementation of important changes in Europe. By waiting until the structure of the new vertical marketing channel is settled, including the reduction of uncertainties concerning the future of Biosystems, change agents can redirect attention to other parts of the context, and later, more easily implement contents that have been more thoroughly planned and analyzed. Hence, timing also becomes related to the allocations of time, to the way sets of action are distributed in the organizational context.³⁵ A marketing change agent's preparedness to change thus concerns also the preparedness to change the allocations of time during the course of an episode.

GOALS, PURPOSES AND CHANGE RATIONALITIES IN CONTEXT: CONTRADICTIONS

Bringing in time (and history) into the picture, every marketing change episode, like the after sales episode, will have elements of self-transformation and morphogenesis.³⁶ It will be transformed by its own actions and by the actions of others, being embedded in the interactions with other change agents and change episodes. Parts of episodes can be uncoupled and integrated with other ongoing change processes. Competing and complementary episodes for the same purpose can emerge. Project structures, agency structures and organizational channel structures interact and change during the course of the process.

Moving towards the next step and analytical perspective - combining the after sales service episode with the other ongoing episodes into a whole and looking at them as part of the company's total, new emerging marketing strategy - the unintended consequences of actions and the morphogenetic characteristics of large scale marketing turnarounds become even more apparent. The ability to handle these unexpected consequences and the perceived ambiguities - adapting the contents and processes or buffering from these

³⁴Also brought up by Pfeffer (1992) who argues that two important timing strategies are concerned with how to use delay and also waiting to signify and build power, (ibid, chapter 12).

³⁵In accordance with timing aspects discussed in: Antonides, G., Arts, W. and van Raaij, W.F.(eds.), *The Consumption of Time and the Timing of Consumption - Toward a New Behavioral and Socio-Economics*, Amsterdam: North-Holland, 1991

³⁶Archer, M., *Culture and Agency*, Cambridge: Cambridge University Press, 1988

consequences - become central managerial aspects. Goals, purposes and *change rationalities* can be both complementary and contradictory over time.³⁷

From the point of view of the after sales service episode, its formal goals and purposes do not openly contradict any formal goals of other change marketing and organizational change projects. Instead, the contradictions appear in the actual change processes, following certain change rationalities of the different change agents. As will be discussed in the next chapter, these contradictory change rationalities will be part of ongoing, interacting change processes, often at different organizational levels. When the after sales service episode connects with the processes resulting from the Volvo-Procordia deal - the creation of Kabi-Pharmacia and Pharmacia Biosystems - two different change logics and ongoing change processes connect. While the goals, purposes and rationalities of the former (establish a new After Sales Division, turn services into profit center operations, establish and keep long-term contacts with customers) could seem unconnected from that of the latter (establish a new biotechnology based, non-pharmaceutical holding company, counterbalance the power of the new Kabi-Pharmacia group, establish new power and management structures), the effects on ongoing marketing change processes become considerable. Changes of the larger whole become partly antithetical to processes and change rationalities of marketing change processes of the parts.

The temporal position of different processes in relation to each other determine what *contradictions* will emerge in the network and production systems, and what ambiguities will be perceived:

The fact that the after sales change episode is only in its early beginning with few signs of stabilizing change contents as the Biosystems organization is announced, partly explains the perceived ambiguities and stops in the change process. Other marketing processes which have proceeded longer and have shown the first signs of stabilized change (e.g. the distribution change episode) have already gained some momentum and internal legitimization. They can handle the emerging contradictions by partly by-passing them. The structural contradictions between the after sales episode and the Biosystems organization appear first in the interactions between actors, then, as Biosystems begins to turn into an operative unit, emerge in the activities and operations of the production system(s). While the after sales episode has started in the internal interactions between biotech units, there are no "natural" relationships and contacts with most of the other companies and units of Biosystems. The internal contacts (including customer relations) between biotech units become partly contradictory to the contacts which over time have been established internally between diagnostics units and units

³⁷Pettigrew (1985) states: "These interest groups are likely to have different goals, time orientations, values and problem-solving styles. In short, they may have different *rationalities*, which provide the motive forces for their actions and reactions, along with the language and styles of behaviour to express those actions." (In: Pettigrew, A., *The Awakening Giant*, Oxford: Basil Blackwell, 1985, p.42)

connected to laboratory, analytical instruments (Wallac) and medical instruments (Pharmacia Deltec). As Biosystems is to turn into an operational unit, the After Sales Division also becomes aware of the production system contradictions; the processes to develop, manufacture, distribute, sell and maintain biotech supplies are in many respects different from those of the other Biosystems companies.

EXTENDING THE CONTEXTUAL PERSPECTIVE

Major reorganizations in marketing operations are the result of a cluster of ongoing change processes, with varying degrees of couplings between them over time. What can be defined and delimited as a "marketing change" in this set of multidimensional and multidirectional change processes is almost impossible. The After Sales Service Division could only temporarily avoid other change processes in the context, from their goals, purposes and change rationalities. The changing context has to be joined with partly redefined change processes and new change contents.

Extending the context, adding concurrent processes to the picture is necessary. We have discussed as part of a marketing change episode, the micro dynamics of interactions, but in accordance with Turner's (1988) statement "we will learn more about interaction by examining macrostructural constraints than we will ever learn about macrostructure by exploring the dynamics of micro interaction."³⁸ In order to avoid the risk of myopia, we move one step further, into the emergent properties of the macrostructures:³⁹

...if we only study micro processes..., we will never see the forest for the trees. We will become conceptually myopic and fail to observe one of the most basic parameters of our daily lives: macrostructures. We cannot simply "translate" the macro into micro encounters...We cannot continue to conceptualize in a vague manner that the macro is composed of aggregated micro encounters, as so many micro theorists have done. Such assertions are not only vague, but they also ignore the issue of emergent properties....

Next the after sales change episode 1990-1992 is put into the context of a major reorganization process, the Biosystems venture, which was announced in the beginning of 1990 but was dismantled in the beginning of 1992. It is also analyzed in relation to a distribution change episode which emerged already before 1990 and which gained momentum when the after sales service episode was still in the start-up phase. Lastly, in the context of the focal change episode, there was also the regionalization process, which began to gain momentum during the same time that the after sales service change took off, from 1992 and onwards.

³⁸Turner, J., *A Theory of Social Interaction*, Stanford, CA.: Stanford University Press, 1988, p.211

³⁹Ibid, p.211

5 Concurrent Change Episodes

A marketing change episode does not come alone. It emerges, loosely and tightly coupled to a net of other ongoing change processes. It will be part of the emergent properties of its macrostructural context, complementing and competing with a number of other processes. From the point of view of the single change episode, the consequences of concurrence can be significant.

Change episodes and processes in the narrow time perspective, which we call "the present", will interact. Parts of episodes can be uncoupled and integrated with other ongoing change processes. Competing/complementary episodes for the same purpose can emerge. Different episodes, change agents, and internal "channel" and external network structures, interact and change during the course of a process. A major marketing reorganization will consist of a set of intended actions and interacting processes, while the resulting outcome will not be intended by any single actor or change agent.¹ The concurrent "change forces" transforming the marketing system in the narrow present will not be anonymous technological, economic, cultural or social forces; ultimately, they will be driven by interacting actions by actors in the system.²

The concurrent change episodes loosely or tightly coupled to a marketing change episode will evolve at different organizational levels. They will be closely or distantly related to

¹Sztompka (1993) states: "Some processes emerge as an unintended, and often unrecognized (latent) aggregation of a great multitude of individual actions taken for various private reasons and motives which have nothing to do with the processes they set in motion.", (In: Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, p.22.) In a similar fashion, March (1981) suggests: "...concurrent, parallel processes of *prima facie* sensibility may combine to produce joint outcomes that are not intended by anyone and are directly counter to the interests motivating the individual actions (Schelling, 1978)..." (In: March, J.G., "Footnotes to Organizational Change", *Administrative Science Quarterly*, 26, 1981, p.566)

²Sztompka (1993) states: "There is a current tendency to...treat the causation of processes as concrete and contingent, involving the complex interplay of multiple forces or factors, whether material, ideal or any other, in unique permutations. None is treated any longer as the ultimate cause of social processes...It is now widely recognized that speaking of economic, technological or cultural causes of change is a misleading shorthand, because behind all these categories the real causally efficient forces are human actions, and exclusively human actions.", (ibid, p.22)

what in each case is defined as the "marketing" organization. The boundaries between "marketing" change episodes and "non marketing" change episodes will be arbitrary and open to different definitions.

With the preceding discussion of the after sales episode as background and foundation, we extend the context, adding two other "marketing" change episodes (a distribution change and a regionalization change), and also a "non marketing" change episode (the creation and dissolution of a company group, Pharmacia Biosystems). The links and the contradictions between episodes are discussed. Change agents and the ambiguities when positioned in a net of interaction change processes are also discussed, like the consequences for the time elements of marketing changes. Lastly, the net of episodes is put into a wider context, providing a link to the next chapter.

To introduce the discussion, we isolate and simplify each of the three focal marketing change projects during the 1990s. Their emergence and development follow different patterns. The episodes have different purposes, move towards different goals, and follow different change rationalities:

The regionalization change episode

The idea of a regionalization emerges from the LKB merger in two ways: there are remains of the old, interrupted LKB regionalization project, and secondly, the consequences of the merger of the LKB and BTG subsidiary nets creating large, inefficient organizations, a problem which has to be solved in some way. The original ideas and tentative plans originate and are controlled by the central HQ management group. Later, a formal regionalization project emerges in one of the central management support units. The core of the continued regionalization change project is later linked with the new emerging Brussels regional organization. The project and the new organization overlap. Later, a reformulated regionalization project is started, now controlled by the core management group of Pharmacia Biotech's Brussels organization. It is later to be transferred to Freiburg. In contrast to the other marketing change projects, the regionalization project does not give birth to any new specific actor or function. On the contrary, the project and the project group is set to *reduce* the number and size of existing organizational units, given the new regional organization in Freiburg.

The distribution change episode

Two projects to cope with the negative distribution effects of the LKB merger - a distribution/logistics project and a consultant based capital rationalization program - are merged into what internally is called "the Capital Rationalization Project". Due to reorganizations (the regionalization), two organizationally separate, partly complementary, partly competing (controlled from Uppsala and Brussels) logistics projects emerge. Later, one of them is dissolved and the original project remains. A

separate Capital Rationalization Function is created from the task force group of the project and is given a central position in the new HQ organization. Hence, the original problems and project ideas turn into a project which turns into an organizational actor, controlling the new organizational units handling the new emerging distribution operations.

The after sales service change episode

The HQ based Instrument Service support unit, merged from the LKB and BTG units, develops project ideas for coping with many of the problems emerging from the LKB merger and improving the control over the activities. The idea is given project status, and soon the Instrument Service unit is given the status as Division with profit responsibility. The divisional management group forms the core of the new project task force group. In contrast to the Capital Rationalization Project, no competing/complementary project is started in Brussels. However, the signals of a new organizational, after sales support unit in Brussels affect the project and task force group. Parts of the new Division and the project - involving the spare part organization and operations - are later transferred to the Capital Rationalization Project and Function. Thus, in contrast to the latter Function, the idea and project fairly rapidly turns into a formal actor, a Division, which subsequently is separated out and implements a specific change project.

On another level in the organizational network, the fusion of Pharmacia, Procordia and Provondor, announced in 1989, results in the creation of a new company group Pharmacia Biosystems AB (we here use the abbreviation Biosystems):

The Biosystems change episode

When the Biosystems group, including Pharmacia Biotech (Pharmacia LKB Biotechnology), is officially introduced in 1990, it is partly the result of the next step in the restructuring of the Swedish pharmaceutical industry. The goal to create the unified Kabi-Pharmacia pharmaceutical company becomes strongly connected to the goal of establishing the "non-pharmaceutical" group, Pharmacia Biosystems. Other purposes for the creation of Biosystems, encompassing seven non-pharmaceutical companies, are advanced: creating a group that counterbalances the power of the new pharmaceutical giant, finding a new, functioning management structure, exploiting technological, managerial and market synergies of the seven biotech related companies,...Irrespective of goals, the venture proves difficult to carry through. Just as the project is changing from creating a holding company structure to the organization of a new operational unit, Biosystems is dissolved. Companies and units are transferred to Kabi-Pharmacia or are divested. The biotech units form a self contained company, Pharmacia Biotech.

Comparing the change episodes, the existence of and/or lack of contacts, interactions and relations effect the emergence and the development of the processes, for example:

When the *regionalization project* enters the second, more intense stage of change after 1992, the problem of maintaining the contacts with the shrinking subsidiary organizations turning into sub-regional constellations of sales offices is handled by introducing a number of new so called Marketing Area Managers. These are set to function as the links between the new regional organization and the local sales units, avoiding the risk of losing the continuity of contacts during the change process.

One of the explanations given for the fairly rapid implementation and success for the *distribution and logistics project* is the intense, direct contacts between the project group and each of the local subsidiary management groups. The local subsidiaries are mobilized into action in intense direct contacts with negotiations, planning procedures and follow-up meetings. Problems come when the task force group has to decide whether to build up new relationships with or bypass the new emerging intermediate organization in Brussels.

One of the points made by the task force group in the new *After Sales Division* when starting the plans for a change is that the group "has very weak relationships both with the other internal divisions and companies and with the local sales subsidiaries" (Divisional Manager, February 1992). The apparent autonomy turns out to be a problem, when trying to mobilize other actors into change actions. When the change process takes off, it proves difficult to enter the right levels in the mobilized units; there are few or no preceding established interactions or relationships to build on.

When the organizational *Biosystems venture* is dissolved in 1992, the explanation given is that there are actually few "natural business synergies" between the companies in the group. In addition, there are no longer any "natural" interactions and relationships between the biotech, diagnostics and medical instrument companies at this time, neither at management level, nor at divisional or subsidiary levels. The interactions and relationships between the local sales organizations and their respective customers are different. When the Biosystems venture starts to turn into an operational unit, most companies in the group only make what can be described as half hearted attempts to interact in order to coordinate and achieve planned synergies.

Combining the projects into a whole, the unintended consequences of actions and the morphogenetic characteristics of major marketing reorganizations become visible. The interplay between several past and ongoing change episodes becomes an important characteristic of a large-scale organizational turnaround process. Marketing and distribution change episodes become important parts of these nets of change processes. The ability to handle the unexpected consequences - adapting the contents and processes or buffering from the links between them - become central managerial tasks.

LINKS BETWEEN CHANGE EPISODES

Each change agent has its own intentions and goals, but the combined, ultimate outcome will not be intended by anyone; taken together, the processes become both *multidimensional* and *multidirectional*. The multidimensionality of concurrent change episodes comes from both the overlapping and differing change contents; the changes can relate to both the same and different activities, resources, actors and interactions. The multidimensionality also comes from the fact that concurrent change episodes appear at different organizational levels; there will be some degree of hierarchy between the change episodes, a hierarchy which can change.

The multidirectionality comes from the actual processes of change. Drawing from the cases, the multidirectionality encompasses facets important for the development process. Firstly, different processes can dominate others during different periods, acting as main driving force for the total change process. Secondly, over time there can be shifts in the way change episodes are supportive and/or hindering in relation to each other. Thirdly, the temporal dimension and multidirectionality encompass the fact that the different phases or sequences of processes connect during different periods of time.

The overlaps and links between Pharmacia Biotech's marketing and organizational change episodes are several and shift over time:

Actor and relationship links

Actors and internal and external relationships are coupled to the overlaps and links. The creation, the dissolution, the mobilization, etc. of internal actors can be interlinked during changes:

The creation of a new internal, channel actor

The creation of a new regional, intermediate organization in the regionalization episode is linked with the creation of a new holding company for the companies in the Biosystems group. Former plans to establish a European, intermediary marketing organization for the biotech operations are modified; a joint Biosystems support organization is implemented for the biotech, diagnostics and medical instrument units in 1991.

The dissolution of a channel actor

When the Biosystems venture and its Brussels organization is dissolved it becomes strongly coupled with the restart of the biotech organization's regionalization program. The dissolution amplifies the process to establish a functioning Brussels unit for Pharmacia Biotech.

Concurrent mobilization of the same channel actors

The concurrent mobilization of local marketing organizations in the distribution, after sales and regionalization episodes creates certain tensions due to uncertainty about priorities among the mobilized actors. The concurrent reduction and rationalization of internal subsidiary organizations (in the distribution and regionalization episodes) create tensions in relation to the factual changes (in relation to customers, for example) that the local organizations are mobilized for. Mobilizing the marketing subsidiaries to increase the intensity in and differentiate the interactions with customers is in part difficult to combine with the concurrent mobilization of the same organizations for a major reduction of internal resources (sales, marketing, local distribution, administration and more).

Relationship links and overlaps

The Biosystems and the regionalization change agents are engaged concurrently in the process of establishing *new* HQ-regional organization relationships. The regionalization, distribution and after sales task forces become concurrently engaged in changes of the *existing* subsidiary-customer relationships. Tensions between the projects are manifested, for example, when subsidiary management groups are to be involved and mobilized. When local distribution and after sales groups are mobilized separately for changes in the relations with customers, less tensions emerge. In addition, the creation of new HQ-regional office relations with new regional units handling the marketing support relations with the local subsidiaries/sales offices becomes antithetical to the distribution and after sales episodes' direct contacts with and mobilization of the subsidiaries for changed interactions with the customers. There emerge tensions between the episodes, manifested as tensions between the new enacted (indirect) relationship structure (enacted and introduced in the Biosystems and regionalization episodes) and the old established structure (with direct HQ-subsidiary relations), enacted in the other episodes.

Activity and resource links

In the production system(s), there appear over time connections between activities and resources of different change episodes:

Rationalization of interlinked activities and resources

In the after sales and distribution episodes there is a direct overlap of activities and resources for change when the latter project turns to a rationalization of the large stocks of spare parts and accessories and associated distribution activities. The stocks and spare part support units are partly controlled by the new After Sales Division. The mobilization for efficiency improvements in the spare part operations comes to interlink the activities and resources of the two change episodes. Another type of link between rationalization processes occurs between the distribution and regionalization episodes. Both task force groups become heavily involved with the reduction of overlapping and interlinked local resources in the subsidiaries. They engage in reducing local management, administration, stocking and sales resources. One important link is the introduction of new, standardized EDI systems for improved and coordinated information exchange in the new internal channel. The distribution and logistics

changes and the new regionalized marketing organization become founded on improved and standardized information exchanges, central interlinked parts of both episodes. Later, the after sales episode is connected to the joint standardization of information exchange routines (mainly under the control of the regionalization group's EDI change program), when plans are made to introduce the UK organization's service management information and control program in most European subsidiaries.³

Transfer and reorganization of interlinked activities and resources

On a pan-European basis, the distribution, the regionalization and the Biosystems episodes' change agents all become engaged in a radical reorganization of the whole production system structure of interlinked production, distribution and use activities and resources. The three overlapping change episodes and the different ongoing reorganization processes are linked through the emergence of a partly explicit, partly implicit hierarchical relationship between the change processes. The Biosystems change becomes superior to the regionalization program and the establishment of a regional office, a process which in turn interacts with the process to establish a standardized, European distribution and logistics structure. A central linking point for all three pan European changes is the new activity and resource structure emerging for the new, intermediate Brussels organization. Another important tension concerns the activity links between the Biosystems venture and the regionalization when a channel structure for marketing support activities and resources is to be established. The joint changes of the two lead to a heavy focus on the new HQ-regional office relationship, including management and marketing activities, resources and contacts. Temporarily, it tends to draw attention and efforts away from the transfer of marketing activities and resources to the new regional office-subsidiary and subsidiary-customer relations.

Hence, links between change episodes can appear in the actor and relationship structure of the network and the activity and resource structure of the production system. There are also connections between the two.

Shifting links and dependencies between episodes

Different links between the change episodes appear over time. Despite the fact that basically all episodes in Pharmacia Biotech emerge during the same period of time, towards the end of 1989 and early 1990, it takes almost two years before the major links and interactions appear. The major link is the Biosystems venture, which, when it turns into plans for an operational unit, creates tensions in relation to most other, ongoing changes. Prior to this, most episodes have evolved separately, or the emerging links have been possible to cope with, without any major interruptions. Some of the links have also been mutually amplifying for the ongoing changes; e.g the resource rationalizations of the

³Not included in the case, but still important for the rationalization and information exchange processes were also the concurrent quality improvement programs. Parts of the biotech organization became involved with certification according to the so called ISO 9000 standards.

interlinked distribution and regionalization episodes, and of the distribution and after sales episodes.

During the course of 1991, the links between the episodes become more contradictory, hindering the ongoing changes of each other. From 1992 and onwards, the links - now almost exclusively focused on the biotech operations - return to become predominantly supportive. The emerging routinization, standardization and intensification of internal exchanges, e.g. information exchange, coupled with the narrowing of focus to the biotech operations, improve the opportunities for coordination. The distribution episode can be strongly linked to new changes in the R&D and production operations. From 1993-94, the after sales episode can be linked to the changes in the ongoing EDI project and to the intensified reorganizations for key account management in the regionalization episode.

Over time, the episodes shift as driving forces for the overall marketing change; while the distribution change has an important role after 1989, the Biosystems venture dominates the period from 1991 until the beginning of 1992. After this, the regionalization with the key account and EDI changes (supported by the after sales changes) together with quality improvement programs become new, important locomotives for marketing change.

The timing of linkages

Change episodes interact during different phases of their development. There emerge tensions between the different change rationalities of episodes, tensions between the planned "logical" steps by which changes shall be implemented and stabilized. There are aspects of timing inherent in a reorganization encompassing interacting change episodes:

The *distribution* and *after sales* episodes differ as concerns during what phases of *realization* they are linked with the Biosystems/regionalization episodes. While the development of concern, acknowledgement and understanding of problems and various planning and minor change actions come early in the after sales organization - already in 1987 when the BTG-LKB merger process starts - the same phases appear later in the distribution and logistics organization. The distribution change more rapidly enters the implementation and action stage. The legitimation process takes longer in the after sales episode. Compared to the former project, the After Sales Division's task force group cannot, due to the nature of the activities, show immediate cost rationalization effects. Due to the fact that the distribution change is beginning to stick and be stabilized, it is somewhat easier for the change agent to cope with disturbing links to the Biosystems/regionalization episodes. The after sales episode is only in the early action stage when it is connected to the two latter. Compared to the distribution change, the legitimation among HQ and subsidiary units is only in the early stage. Also the regionalization change is in the early planning and acting stage when the Biosystems venture enters the

operational phase. It is given a "new" start (acknowledgement and understanding of new problems, planning and acting on new focused problems) after the links to the Biosystems change are dissolved in 1992.

Interruptions and episode interactions in the more long-term perspective can have positive effects on the change contents. The fact that change episodes interact, hinder and slow down the pace of the processes and lead to change and adaptation of the change contents, is not always negative. On the contrary, judging from the case, it can create ambiguities which force reformulations whose positive outcomes would not have appeared if the tensions between different change episodes had not been there.

Certain change activities can only be performed at certain times; there open up possibilities in the internal channel or in the external network when certain actions can be performed, while at other moments in time the possibilities can be more limited. By delaying the decision to organize a new central warehouse - caused by the impact of the regionalization and the Biosystems reorganizations - and timing the decision and implementation to the point immediately following the dissolution of Biosystems, the distribution task force group is able to implement a distribution solution which politically (according to their own view), had been difficult to implement only 1-2 years earlier. (A centralized, Uppsala based warehouse operation and organization could be implemented).

The processes of change and links between episodes

A major marketing reorganization will be coupled with contradictions, ambiguities and various tensions between different ongoing change processes emerging in different parts of the organizational network. From the point of view of the processes of change, the emerging interactional stability and the structuring of interaction processes became the result of links between the change episodes.

The upsetting of and subsequent stabilization of interaction processes resulted partly from interaction between change episodes ("destructuring and structuring of interactions"):

During different phases 1989-92, certain change episodes enter the stage of upsetting stable norms, routines, resource transfers and the stable temporal/spatial structure of interactions. The timing of such phases of different change episodes cannot be fully coordinated, which means that contradictions emerge. But the introduction of new stability and new forms of structured interactions driven by one change episode is also supportive for the change processes in other episodes. The phase of destabilizing a stable interactive structure, or the phase of subsequently stabilizing a new interactive structure in one of the marketing change episodes becomes more or less supportive or contradictory to the phases of destabilizing or stabilizing the interactive structure related to a second and/or a third change episode.

Changing the interactions in one relationships can also be helped or hindered by the concurrent change of an indirect relationship by another change episode ("structuring of indirect interactions as a basis for change"):

The introduction of change (and subsequent structuring of interactions) in the subsidiary-customer interactions in the distribution and after sales episodes is made possible by the role-making and role-taking processes and the structuring of interactions in the new, emerging HQ-region and region-subsidiary interactions, driven by the regionalization episode. Hence, the stability which is a prerequisite for introducing change applied not only to the singular channel relation and singular episode, but to an interdependent net of relations, interactions and episodes. There is also a reverse interdependence. In order to be able to introduce a new stability and a new "logic" for structured interactions, there is a need to change in other parts of the network. The contents and processes of ongoing strategic changes elsewhere affect the process.

The structuring of indirect channel interactions and relations in one episode can thus be a basis for implementing change and new interactional stability in a focal channel relation in another episode. This can also contribute to the structural ambiguities, as perceived by change agents.

AMBIGUITIES ABOUT CONTEXT

Due to both direct and indirect interdependencies, and due to the temporal flow of actions and the changing properties of the context, marketing actions will be endowed with ambiguities.⁴

The interdependencies between these "internal" processes contribute to the unpredictability of single marketing change episodes.⁵ Each marketing change agent will make its own interpretation of the structures - and of ongoing structural changes - in the context. Time and the temporal flow endowed in the moving context will sometimes result in only loose connections between the marketing change actions and the contextual, structural changes.⁶ Strategic marketing contents can be fitted to a contextual structure

⁴As suggested by March (1988): "Sometimes we observe a considerable impact on the process of the temporal flow of autonomous actions. We need a theory that considers the timing of different individual actions, and the changing context of each act. Most theories imply the importance of the context of an act. Typically, however, they have assumed that this context has stable properties that allow unconditional predictions. We observe a much more interactive, branching, and contextual set of connections among the participants, problems, and solutions in an organization." (In: March, J.G., *Decisions and Organizations*, Oxford: Basil Blackwell, 1988, p.341.)

⁵March (1988): "The structure of the internal process may be highly time-dependent; changing contexts of the individual acts may produce organizational actions not anticipated or desired by anyone." (ibid, p.341).

⁶March (1988) states:"As a result the same organizational action will have different responses at different times; different organizational actions will have the same response. The world of the absurd is sometimes more relevant for our understanding of organizational phenomena than is the idea of a tight connection between action and response." (ibid, p. 342)

which will change during the process or which will already have changed before the strategic change process takes off. Concurrent change processes can be reflected in perceived ambiguity about the structure of the context. This in turn will have effects on what is changed, how it is changed, and when it is changed:

The change agents of the regionalization, the distribution and the after sales episodes all make their own interpretations of the strength of the emerging Biosystems concept, including the strength of the internal structure, i.e. the future structure and strength of relationships between the seven companies Pharmacia LKB Biotechnology, Pharmacia Diagnostics, Kabi Diagnostica, Pharmacia Deltec, Wallac, Sebia, and Biosensor. Concurrently, the emerging managerial group of the new Biosystems organization directs attention to specific parts of its context: How should Biosystems relate to the new Kabi-Pharmacia Group and in what region(s) and in connection to which of the regions - Europe or USA - should the control and power be directed? The situation is made more complicated by the fact that ambiguities about the "horizontal" relations between Biosystems companies overlap with emerging ambiguities about the "vertical" structure. Should the change process continue to proceed in a HQ-subsiidiary-customer "channel" structure or in a new HQ-region-subsiidiary (sales office/sub-region)-customer channel structure? Perceived structural ambiguities in ongoing change episodes converge on these two changes in the "horizontal" and in the "vertical" dimensions. Coupled with the emerging focus on the problematic European market organization, perceived structural ambiguities and attentions are drawn to the new, emerging intermediary, the Biosystems Brussels organization in region Europe.

While attentions converged and the perceived structural ambiguities by change agents within the biotech organization also converged on uncertainties about the strength of the present and the planned future "horizontal" and "vertical" structures, actions differ:

For the After Sales Service Division, there is a stop in the process and interaction processes are partly redirected towards other internal units at central, HQ level for legitimization of the process. There is no after sales unit in the Brussels organization to interact with. Change contents are partly changed. The Distribution and Logistics Function, on the other hand, has to start "competing" with a new, additional European logistics project for Biosystems in Brussels. As a result, the original task force group directs attentions and interactions to the local market subsidiaries, in Europe and in the other regions and bypassing the Brussels organization. Change contents are partly redirected; decisions concerning where to locate a new central warehouse in a new direct distribution structure are transferred to the planning processes of the second, Biosystems controlled, distribution change project in Brussels.

Hence, ambiguities about structures (and resulting actions) are partly *ambiguities about contradictions*. For example, should attentions and actions be adapted to the emerging contradictions between the old and the new internal vertical channel structure and/or to the contradictions between the old, simple Biotechnology Group structure and the new

Biosystems organization? Ambiguities about contradictions concern also which "relevant" tensions between the interactive, network governance structure and production system structure to focus on. Time and resources are limited and change agents cannot attend to all problems and structural tensions at once. Focus has to be directed at certain contradictions and tensions in the context. The power structure and hierarchical levels between ongoing change processes partly determine which actor's perceived ambiguities about contradictions will guide and dominate subsequent actions and change.

ADAPTATIONS OF TEMPORAL PROFILES

Every strategic marketing change is - at least implicitly - aimed for certain, stable *time functions* embedded in the operational structure in this context. In concurrent change episodes, time functions (see chapter 3) connected to the change contents and processes of an episode are subject to changes. On the whole, all basic functions of time embedded in activity structures and in the interaction structures between actors are the *objects* of change during some phase of a major marketing reorganization, for example:

Coordination

A central purpose of the reorganizations from the late 1980s and onwards is to change and improve the coordination between production, distribution and use activities in the whole production system. All activities need to be linked and related to each other in a new way. New views of time distances and time series concerning both the functioning in the short term perspective (coordination of physical flow activities from production to users in connection with sales) and the long term perspective (coordination of sales and service activities with key account user activities concerning both width - laboratory, preparatory production and process scale activities - and "user cycle": purchase, installation, use, maintenance, repurchase,....) are necessary to introduce.

Sequencing

New sequences of activities in the chain of production, distribution and use activities are introduced. New logics for the way activities should fit into a sequential order have to be developed for the distribution activities, driven by the strategy to introduce direct physical distribution from central warehouses to the customers.

Measuring ("Quantitative time")

Embedded in the structures become various time related devices for controlling the systems. As a central aspect of all marketing change projects, explicit time accounts (length of time to change certain marketing operations/organizations, various new time related performance measures, etc.) are central elements of the contents and the processes of the change episodes. In the logistics and after sales

changes, a number of different time measures are introduced both as part of the actual change process and as part of the new operational structures set up as goals for the change processes.

Differentiating

Marketing changes can involve open differentiations of the allocation of time, changing the routines for what periods and contexts that are connected to certain activities. When Pharmacia Biotech decides to redirect its total marketing organization towards relationships with key accounts and non-key accounts, this involves also an open change towards a new differentiation of time allocations of sales and service personnel. While the direct contacts with non key accounts shall be handled by new telemarketing units, the main part of the organization starts allocating more time to a set of chosen key account customers, increasing both the frequency and regularity of the contacts.

As regards *synchronization*, mobilizing collective action so that e.g people (and resources) in the organization find themselves at the same time at the same moment, there were examples in the after sales service and distribution change episodes indicating that new patterns of synchronization also emerged. For example, the physical flows of spare parts had to be synchronized in new ways with the activities of the service personnel. New patterns of *timing* different actions also emerged. Many of the actions taken in the change episodes during the first years of the 1990s were not based on considerations concerning timing in relation to other change actions in the context. Later, mainly after the dismantling of Biosystems 1992, change agents seemed to become more aware of the importance of the timing factor. Studying each change episode in isolation, the time functions targeted in the internal production system and interaction structures are shifting during different phases, appearing in the contents of change of the various episodes.

Time function targets - objects of change

Broadly, the prime aim for all three marketing change episodes is to *alter the coordination* of activities in the existing marketing activity structure. Due to the problems of the preceding company merger process, serious problems in the way activities are timewise linked to each other have emerged. The central and local physical distribution, service, marketing and administration activities are subject to an emerging structure of loose coupling in the vertical chain, with weak specifications concerning temporal interrelations between activities. These weak time specifications concern also the links to and coordination with production. As a result of the merger, there has emerged a number of loosely connected, local and central, clusters of activities (sales, physical distribution, application service, aftersales service, production, product development) with their own, underlying temporal characteristics.

The three episodes affect other time functions, as in the regionalization episode:

In the regionalization change and apart from the general problems of the coordinative time elements of the structure, one of the first central requirements for change concerns the *sequencing* of consecutive marketing activities. Apart from the general need for improved coordination of activities, the regionalization requires a focus on the temporal sequencing of marketing activities, when leaving the nation based subsidiary net and introducing new divisions of marketing activities for the new HQ organization, the regional organization and the local sales organizations. (Customers are increasingly becoming part of the change processes). During the later stages of the regionalization, attention is turned also to the requirements for increased *differentiation*. Due to the key account program, there is a need to break the routines and structures of time allocations of sales, service and marketing personnel. New organizational and operational structures are presented and introduced in order to break the established underlying time allocation structure. Individuals and collectives in the new organization that is beginning to take shape after 1992 are beginning to differentiate their time allocations towards key account and non key account customers.

Also the distribution episode is primarily aimed at a change of the temporal structure, characterized by a lack of coordination. Due to the fact that the change is initiated and performed within a fairly limited period of time, and that so many established structures have to be broken, it is necessary to break concurrently with several established temporal structures :

There is a break in the *sequencing* (e.g. breaking the sequencing of sales, ordering and delivery activities), the *differentiation* (e.g. breaking the established, non-differentiated delivery and waiting time structure towards customers in the distribution chain) and the *synchronization* (e.g. breaking with and introducing a new transportation system structure with much higher requirements concerning synchronization of concurrent activities). In comparison to the other change episodes, the *measuring* function of time becomes much more openly applied during the course of the whole change process. New, more refined time measurement variables are institutionalized in the new emerging operational structure.

In the after sales episode, the prime target for change is also the (lack of) temporal coordination structure:

The focus on the service contract sales draws early attention to the fact that time allocations in the service activities have to be upset and *differentiated* in a new way. Hence, more time needs to be allocated to the new contract sales activities, and the non-differentiated time allocation needs to be replaced by a system where much more time is directed towards the prime target for contract sales, the industrial customers. (The division into key accounts and non key accounts is institutionalized somewhat later). There is later also an increased focus on breaking with established *sequencing* structures of the technical service activities. One of the more obvious sequencing changes concerns the

turnaround of the passive, cost based service activities into active, progressive sales and service based on profit centre principles. The after sales units shall be present at customer sites, preferably before serious breakdowns in equipments occur. Later, with the introduction of a new standardized service management system, the time *measurement* function becomes more apparent. The system opens up the possibility to introduce a refined range of standardized time measurement variables for the service activities.

The interdependencies of change in one time function with changes in other time functions is apparent. Within one episode, change in one underlying time function will have some repercussions on the other functions. What time functions that a specific episode is aimed at will change during the course of the change. The dominating time function targets in the subjects of change, in the marketing change episodes, will shift over time.

Contradictory and complementary time functions

During the processes of change, tensions between different dominating time functions in different parts of the marketing network surface. When Pharmacia Biosystems is created, the tensions emerging between the seven companies in the group are related to the contradictions and complementarities of underlying time functions institutionalized in the activity structures of the production-distribution-use systems of the different companies. When the biotech group of Biosystems initiates changes, attempting to break with established time structures, the new temporal coordination, sequencing, differentiation, synchronization, and measuring functions introduced contrast with the established time structures of the other Biosystems companies.

Also *within* the biotech group, tensions between differences in institutionalized temporal functions surface. When the task force group of the after sales service episode is to introduce a *differentiation* change, focusing on contract sales and long-term contacts with industrial customers, it contrasts with other units' still relatively non-differentiated time orientations (based on high speed in new product introduction in sales towards both old and new customers). From the outset there is also a need for improved coordination between the clusters of activities related to the product sales, the application service and the after sales service units. The sequencing of the sales, installation, application service, service sales and after sales service activities needs to be improved. The different units with direct customer contacts have developed different "time perspectives" and "time orientations".

Adaptations of temporal profiles

The flow of time in a major marketing reorganization with interacting, concurrent change episodes is not likely to be smooth or uniform.⁷ There will be breaks and ruptures, accelerations and inertia; the sense of rhythm that creates predictability and stability in smoothly proceeding change processes will sooner or later be broken by periods where the temporal qualities are changed. The temporal profiles, including sequential structure, duration, repeatedness, localization in time, and speed (see chapter 3) as part of the processes of marketing change episodes will have to be adapted, in interplay with the adapted, changed and stabilized change contents. In the interplay with change episodes in the context, the temporal profiles of the marketing change episodes in Pharmacia Biotech had to be adapted over time:

Sequential structure

All three marketing change episodes are subject to successive alterations of the sequencing of change actions. All episode processes are subject to sequencing changes concerning the order in which actors are to be mobilized for the implementation of the change contents. The episodes start more or less uncoordinated, but when change contents overlap and structural changes affect the ongoing processes, the need for coordination of change episodes increases. The orders in which the actors in the organizational net of marketing actors are to be mobilized are changed. Some have to be revised as the change processes proceed. The sequential revisions as part of the change processes are also linked to revisions of the change contents (in the after sales episode). The sequential implementation successively changes; the momentum gained when all the concurrent change episodes are beginning to stick in the organization after 1992 increases the opportunities for increased synchronization. The sequential structure of implementation can be related to the vertical dimension; when a new intermediary is introduced in the regionalization program, the other change projects have to revise some of the planned sequential order in which the changes are implemented.

Duration

In all change episodes, the duration of the change processes are extended. The not intentionally extended durations later become driving forces for revisions of both the change processes and the change contents (for example, the "new start" given to the regionalization from 1992 and onwards). There are officially acknowledged durations of episodes complementing the actual durations. It is apparent also in the preceding merger process. While the formal merger of LKB and BTG has a duration of only around 12 months (late 1986 to late 1987), the informal continuation of the merger processes in the production, marketing and administration operations is extended over several years, developing into the strategic marketing change projects of the 1990s. One of the most significant characteristics and alterations in the merger process is the completely reversed duration of the

⁷In accordance with Sztompka, P., *The Sociology of Social Change*, Oxford: Basil Blackwell, 1993, p. 54

production and the marketing subsidiary merger processes. The reasons are several, and can be related to both internal (the loss of control of the subsidiary merger process) and external factors (the downturn of sales in the biotech equipment industry requiring reduction of production capacity). Plans in the subsidiary merger process are to use the extended duration (covering a period of at least 3-4 years) as a strategy which shall hinder the loss of customer relations (mainly LKB customers) during the process.

Speed

The flow of time in the change episodes is not uniform. The speed of the change processes varies over time, that is, the processes do not evolve smoothly or in a completely uniform way. Rather, periods of seemingly smooth and even changes are interrupted by breaks, ruptures, and moments of increased speed in the process (like in the subsidiary merger process of the BTG-LKB merger).⁸ Not intentionally extended durations of several episodes lead to increased attention to speed, like in the regionalization process from 1992 and onwards. The setting of new, specified time limits for the implementation of certain change contents in several cases increases the speed of ongoing change processes. The dissolution of a change episode (the Biosystems venture) also becomes a driving force for increased speed of other change episode processes (regionalization, distribution, after sales). Increased speed in the processes also appears to be a way for change agents to increase the control over mobilized counterparts (used as a tactic in the regionalization episode, for example).

Repetitiveness/uniqueness

Every marketing change episode is unique, but change can encompass elements of repetitiveness which become part of a long-term learning process. Hence, over a longer period of time, the processes of acquiring P-L Biochemicals, merging with LKB and implementing the distribution and logistics change form a chain of repetitive change events affecting the physical distribution structure. In a shorter time perspective, every change episode encompasses repetitive actions, some of which are the origins of structuring processes and the foundations for new repetitive routines in the new activity and interaction structure. For example, various measuring procedures functioning as control for the development of the strategic change episodes, later become embedded as new, stable reporting and interaction routines between internal units in the new biotech channel structure. This repetitiveness concerns *frequency*; in order to implement new interaction routines in the new channel structure, the frequency of interactions has to increase during certain periods of the marketing change processes. In the regionalization, an important aspect of the differentiation and new structure of allocating time has to do with a proactive increase of the frequency of contacts with chosen key account customers.

Over time, there are changes in the way task force groups in the interacting change episodes can work with differentiated time allocations. While the original plans often encompass change contents connected to both long-term and short-term goals, contextual

⁸Hertz (1993) uses *speed* as a variable to analyze temporal aspects of strategic and structural changes in networks of freight transport companies. (In: Hertz, S., *The Internationalization Processes of Freight Transport Companies*, EFI, Stockholm, 1993.)

changes restrict the possibilities to differentiate time allocations and work with short and long term changes concurrently. Due to concurrence, there are periods when the whole company and its change agents find themselves in the situation of having to narrow down changes to very short term adaptations, "panic responses", to contextual changes:

The most obvious modifications of temporal profiles of the marketing change projects in Pharmacia Biotech are a result of the interactions between ongoing changes in the present. The interactions between the Biosystems, the regionalization, the distribution, and the after sales changes result in successive modifications of sequential structure, duration, speed and emerging repeatedness of all projects. The implicit hierarchy between the four episodes partly determines the developing adaptations of temporal profiles. The temporal dimensions of ongoing, interacting changes affect each other *across* various time elements. In other words, a change in *sequential structure* in one episode forces an adaptation of the *speed* of change in a second episode, which in turn causes modifications of the *duration* and *emerging, stable repeatedness* of actions in a third change episode.

Changes in temporal profile are also related to origin and emergence of the change episodes:

The *extended duration* of the LKB-BTG merger process after 1986 - combined with the rapid downturn of sales in the biotech equipment industry - leads to a need for increased *speed* in the marketing change processes when they take off. The accumulating problems subsequently result in the need for a rapid reorganization of the company's marketing operations. In a similar way, the extended introduction and *duration* of the Biosystems organization and the subsequent dissolution improves the opportunities to increase the *speed* of the other ongoing marketing change processes, heading faster for a new, planned structure. It can be observed how *sequential structures* of the marketing change episodes become determined by the past. The sequential orders in which marketing subsidiaries can be mobilized for change in the regionalization, distribution and aftersales episodes are partly determined by the emerging heterogeneity in the local, national markets. The sequential plans and structures include considerations concerning the emerging links between the subsidiaries and other, non-biotech companies; subsidiaries with strong links to other companies are generally positioned late in the plans for mobilization.

Over time, changes in the temporal profiles of different change episodes will interact and can show patterns of both contradictions and complementarities.

The non-linearity of change episodes

Changes in the pace and tempo - speed - of change processes, and alterations in the duration and repeatedness of processes will affect the linearity of strategic changes. It concerns the directional consistency of the change processes over time:⁹

...one conception of change would anticipate a cumulative momentum or "roll" from one (strategic) archetype to another. An alternative conception would perceive the organization as pulled and tugged between competing interests and, as a result, characterized by disjunctions, oscillations and temporary reversals or delay in the overall movement towards a different archetype.

Large scale marketing reorganization processes are likely to be punctuated by several, temporary reversals in the seemingly consistent moves between system structures. All the major strategic marketing change processes in Pharmacia Biotech encompassed oscillations between different partly competing change paths. Thus, all processes were affected by temporary reversed directions of change. The long-term, ongoing separation of the marketing systems for biotech, diagnostics and pharmaceuticals in Pharmacia were reversed in the Biosystems venture. Biotech units and ongoing marketing change processes "oscillated" back, changing directions towards a change goal competing with the goals of ongoing changes. The overlaps between different change episodes at different organizational levels in the network were an important origin of these "backtracks" and "temporary reversals".¹⁰ How companies and change agents over time handle these oscillations between change paths - the reversals and backtracks - becomes important. It becomes a problem of handling the non-linearity of change and the altered time elements of change during the course of the process.

CHANGE EPISODES IN A MOVING INTERNAL BIOTECH CONTEXT

Going back to the after sales episode, part of the temporary reversals, backtracks, stops, momentum, and stabilization of processes and contents, in the episode can now be explained. The question how marketing change agency and structure interact over time - and viewing it as an ongoing dialectic between part-whole dimensions of structure and personnel action - can be given a tentative, partial answer.

The change agent, the task force group, of the after sales episode interacted with a structure that was changing both as a consequence of its own actions and of the concurrent actions of other change agents. Thus, the interaction with structure, involves

⁹Hinings and Greenwood (1988) describe under the heading "periodicity of change" the three temporal aspects *pace*, *sequence* and *linearity* as central to the processes of strategic change. (In: Hinings, C. R. and Greenwood, R., *The Dynamics of Strategic Change*, Oxford: Basil Blackwell, 1988, p.107)

¹⁰Hinings and Greenwood (1988), *ibid*, p.115

both actions in the pursuit of individual and collective ends. Although the ends of the after sales and the other episodes may basically have been complementary, temporality and loose couplings between them lead sometimes to tensions between the after sales episode and the changing structure. Change contents and change processes in the after sales episode were planned for, and initiated in, a structure which changed during the course of the change, due to the interplay with concurrent episodes. The change agents of the after sales episode interacted with a structure which during certain periods were dominated by the change actions of the distribution, regionalization and/or the Biosystems episode.

In addition, while the change agents of the after sales service episode had an interest in continuing to implement the changes in certain, relatively stable structure involving only the biotech units, the Biosystems venture partly upset this stability. Contradictory requirements for stability and change emerged between change episodes with important consequences for the ongoing change processes. Hence, the temporal location, the timing, of up-setting the structural stability (as part of the actions in one episode), can be bad from the perspective of the change agents of other episodes; they need a certain structural stability in order to be able to continue the ongoing change processes.

How, when, and where concurrent change episodes interact is important for directing change agents' attentions, and thus their interpretations of the structure in which to act and interact with. Over time, there emerge changing hierarchical power structures between concurrent episodes; what episodes that dominate the structure changing processes will shift over time, partially open for the interpretations of marketing change agents. The timing of interactions (whether intended or not) between change episodes - and the subsequent interactions and mutual adaptations of contents, processes and temporal profiles - becomes an important determinant of the change agency-marketing structure interplay.

Single marketing change episodes are not only positioned in the nearby context of immediately antecedent and concurrent processes. A change episode is born in the long-term historical processes, taking the marketing organization and operations through a number of cumulative, structural transitions. The successive adaptations of contents, processes and temporal profiles in the after sales change episode and in other episodes in Pharmacia Biotech 1989-1992 are easily connected to the contradictions, ambiguities and resulting actions emerging from the interactions between the concurrent processes and between these and the preceding merger process.

Part of the focal change episode's dynamics is explained by the position of the marketing changes in the long-term emergence and development of the biotech company and its context. The change contents and processes are partly concerned with the actions to break with this historical development, while concurrently building on the resources, activity structures, actors and relationships of the past when moving towards an intended future structure. The after sales episode contains actions to break with organizational and technological structures set e.g in the period from 1974 and onwards when technical service activities are built up as a consequence of the launching of integrated separation product systems. The change agents of the distribution change episode have to break with physical distribution structures and "pharmaceutical" distribution traditions established even long before the birth of Pharmacia's new laboratory product company in 1959. The regionalization change episode breaks partly with the long-term stable, internationalization process started in the 1940s and intensifying in the 1960s and 70s and continuing in the 1980s, when the net of nation based marketing and sales organizations is altered. The Volvo-Procordia deal and the subsequent Biosystems venture implies a radical break with Pharmacia's synergistic strategy and organizational structure set after 1975, breaking up the historical bonds between Pharmacia's pharmaceutical, diagnostics and biotech organizations.

Next, the concurrent marketing change episodes of the near present are put into this context of long-term processes of change.

6 The Moving Internal Context

How does a marketing channel for a new product and innovation emerge and change within and from the context of an established industrial corporation? And how do marketing change episodes emerge and change, embedded in this moving, internal context? We now enter a discussion of the organizational context, the internal organizational "channel". Marketing reorganizations take place in an emerging, organizational context pervaded with history. Extending the structural and temporal context, we take a step back and start with what constitutes an industrial marketing channel, pinpointing important cumulative elements of its emergence and transformation over time. Leaving aside some of the classic (and mainly static) models describing and explaining the emergence of marketing channel structures,¹ we move into a contextual description and discussion of how a "new" industrial marketing system emerges. The conceptualization and starting point is the industrial network of intra- and interorganizational actors and production system of connected activities and resources for manufacturing, distribution and use.² Pharmacia Biotech's "channel" of production units, central support organizations, intermediate subsidiary organizations and customers evolves from new combinations of activities, resources, actors, and patterns of relationships and interactions.

Relating the contents and processes of strategic, marketing changes to the slow flow of the moving "internal channel" context means relating to the natural, long-term - apparently stable - processes of change, while concurrently overcoming cumulative events shaping

¹E.g. the Aldersonian models of assortment and sorting (Alderson, Wroe, "Factors Governing the Development of Marketing Channels", in Richard M. Clewett (ed.), *Marketing Channels for Manufactured Products*, Homewood, Irwin, 1954, pp. 5-22), the rationale for intermediaries (ibid), the laws of exchange (Alderson, Wroe and Martin, Miles W., "Toward a Formal Theory of Transactions and Transvections", in Mallen, Bruce E. (ed.), *The Marketing Channel: A Conceptual Viewpoint*, New York, Wiley & Sons Inc., 1967), and service output explanations of emerging channel structures (Bucklin, Louis P., *Competition and Evolution in the Distributive Trades*, Englewood Cliffs, N.J., Prentice Hall, 1972, pp. 18-31).

²See model of the industrial network, figure 3.1., chapter 3.

the history of these technological and organizational contexts. In the after sales episode (like in the distribution, regionalization, Biosystems, and the BTG-LKB merger episode), strategic contents and processes reflect this duality. One argument pervading this chapter is that different change episodes - the contents and the processes - will partly reflect attempts to break with processes and structures set during different historical periods.

The after sales episode's contents and processes reflected adaptations to and breaks with historical technological changes. These were coupled to successive changes in the production system, in the chains of production, distribution and use activities. Secondly, the contents and processes reflected also attempts to break with and build on internal actor changes, including the way the internal biotech units over time became coupled to and uncoupled from other internal units. In this chapter, we approach the context by breaking down the network processes into four constituent parts. The change episodes concerned:

Changes in the production system:

1. Relating to and breaking from technological change processes
2. Relating to and breaking from processes of change in activity structures

Changes in the actor structure:

3. Relating to and breaking from processes of change in internal actor and network structure
4. Relating to and breaking from processes of coupling to and uncoupling from other (internal) actors.

How, when, where and why the marketing change processes and contents are positioned in the historical processes of the emerging, internal production system and network are important factors determining their development. Marketing change episodes emerge and transform in the context of stable processes of organizational and technological change. The timing of actions in this moving context becomes important.³ (It is suggested that the reader goes back to Table I, p. 8 in the case volume. The four change processes above basically follows the temporal structure depicted in the table.) The four changes are interdependent. Concrete examples from the case will illustrate some of these interdependencies.

When the task force of the new After Sales Service Division starts the change project in 1989-90, the change agent acts in the crosspoint of multiple technological and organizational change processes. It is reflected in adaptations of change contents and change processes:

³March (1981) states: "Such a view of managing organizations assumes that the effectiveness of leadership often depends on being able to time small interventions so that the force of natural organizational processes amplifies the interventions.", (In: March, J., "Footnotes to Organizational Change", *Administrative Science Quarterly*, 26, 1981, p. 575)

Relating to and breaking from technological change processes

The contents and adaptations of interaction processes when mobilizing marketing subsidiaries to change their interactions and service activities in relation to customers reflect difficulties to build on while breaking with activity and interaction structures set from the mid 1970s and onwards. The mid 70s is the period when the biotech group starts integrating supplies, manufacturing product systems that require various new follow-up services. In the 90s, building on the old, established resources and existing, cost-based service support routines, the task force group needs to conform the change processes and contents to the ruling, intensifying technological processes of *system integration and functional orientation* (i.e. moving towards integration of chemicals, instruments, application services and technical services for several purification steps) while redirecting the role and view of the technical service activities in this process. Interaction processes are redirected during the change episode as a consequence of difficulties to break certain market subsidiaries' and other units' established way of handling the activities. The difficulties to implement the sales of long-term service support contracts as part of the functional orientation result in several stops and new starts in the implementation of this particular change content.

Relating to and breaking from ongoing processes of change in actor and network structure

The change contents and processes in the after sales episode are related and adapted to a *long-term actor expansion process*; Pharmacia and its biotech group are in the process of integrating more actors in the corporation. The change processes and contents of the after sales episode have to be adapted to the fact that this long-term process is taking a new path in 1989. While earlier, Pharmacia has controlled the steady expansion, it now becomes controlled by the Procordia group, with new strategies for how internal units shall be grouped and coordinated. The changes in contents and processes in the episode in 1990-1992 reflect problems to both adapt to this change of conglomerate structure, while having to adapt to it, and the new paths chosen by Procordia.

The different contents and processes of Pharmacia Biotech's marketing change episodes reflect a duality; breaking from, while living within, the historical, stable processes of change. The intents and attempts to modify the present state of the marketing system structure are part of the moving context. Sometimes actors deliberately try to bracket and enact a particular part of the context in order to modify it and reach beyond the limits of the present state.⁴ Sometimes these attempts are less successful, and the change contents become captives of the established, emerging structural arrangements and processes of the system.

Looking at the emergence and development of Pharmacia's marketing channel for biotechnology supplies, attention is easily drawn to the "great events" that influence the

⁴Weick, K.E., *The Social Psychology of Organizing*, New York: Random House, 1969, p.130

structure of the marketing system. The long-term cumulative effects are often more opaque in comparison to the single, conspicuous change which temporarily draws the attention of people in the company. As Pharmacia's biotech organization changes over time, passing through different phases of structural evolution, a number of events emerge which attract the attention. The organization and marketing system go through periods of both dramatic changes and low levels of change activity.⁵

Understanding change episodes requires an understanding of the long-term technological and organizational change processes shaping the moving internal context.

IN THE CONTEXT OF MULTIDIMENSIONAL TECHNOLOGICAL CHANGES

Important aspects of the evolution of Pharmacia Biotech's internal marketing system are triggered by events, moving the system into new formations by long-term adjustments. Underlying these events, there is a process of *technological shifts* in the company, affecting the chains of production, distribution and use activities in the internal marketing organization. Irrespective of structure, delimitation and definition of these activities,⁶ the combined activity structures will be inextricably interconnected with the successive, technological changes in the channel. And in this moving context the strategic change contents and processes are born and developed.

The moving internal context needs to be conceptualized in terms of its own distinctive properties. Leaving the micro dynamics of change episodes, and interacting change episodes, we now paint a broad picture of the technological changes of the internal context (bearing in mind that these changes are ultimately driven by human actions). Following the earlier event history of Pharmacia Biotech, each new period commences with a technological event. These events and connected technological changes put their mark on and come to define each period. They also leave their mark on the internal activity structures. Summing up the development, taken together the changes come to

⁵Described in the strategy and organization literature as periods of "evolutionary" and "revolutionary" change. (In: Mintzberg (1978), Mintzberg and Waters (1982), Miller and Friesen (1982), Miller (1982), and Pettigrew (1985). See list of references.)

⁶The new "activity combinations/activity cycles" (Håkansson and Johansson, 1992), the adaptation and the successive addition and reduction of activities in the production system, successively create a new functioning structure. The structure of "transactions and transvections" (Alderson, 1957) or "transfers and transformations" (Håkansson and Johansson, 1992) changes over time. "Transit", "inventory", "search", "persuasion" and "production" activities and functions are reshuffled (Bucklin, P., 1960). Changes in producer related activities - "product realization", "consumer influence", "physical transfer" - and consumer activities - "procurement", "regular use", "maintenance" - affect the internal activity structure, and vice versa (Gadde, L-E. and Håkansson, H., 1992). See list of references.

constitute one part of the "slow flow" of the new biotech organization's emerging marketing system:

Period 1941-1959 ("Innovation Phase")

Technological events

*The invention of gel filtration; combining technological innovations and knowledge in biochemical separation technology, chromatography and dextran research.

Effects on the activity structure

R&D activities in the Department of Biochemistry at Uppsala University are linked with R&D activities at the Research Laboratories of Pharmacia. New combinations of macro molecular separation development activities are created. Transformation activities (separation media R&D and production) are successively transferred to the Pharmacia laboratories.

Period 1959-1967 ("Implementation Phase")

Technological events

- *The launching of a new separation media, Sephadex
- *The start of up-scaling of gel filtration methods
- *The development of a new chromatographic separation column

Effects on the activity structure

Sales activities ("persuasion") are first integrated with existing sales activities for pharmaceuticals and health care related products, but specialization of sales activities begin early after launch. The sales activities are interlinked with new types of product procurement activities among academic laboratory customers, and are developed and integrated within the context of the new emerging net of subsidiary organizations. New types of R&D, production and supply activities are developed in the Uppsala organization for the new columns and the up-scaled, industrial media products. R&D activities for process scale separation in Pharmacia and Alfa-Laval are interlinked. The stock and warehousing activities and functions and the physical transfer activities are integrated with those of Pharmacia's pharmaceutical organization.

Period 1967-1974 ("Product Extension Phase")

Technological events

- *The opening of a new column factory in Umeå
- *The installation of large-scale process separation systems in food production
- *The development and launching of the first diagnostic tests

Effects on the activity structure

Physical separation and differentiation of production activities (media and instruments), and organization of new physical transfer, "transit", activities between Umeå and Uppsala. Completely new column production activities are established in Umeå, and R&D activities are joined between the Umeå

organization and Umeå University. Physical transfer and warehousing activities for columns are integrated with existing product transfer and stocking activities. Some sales, installation and transfer activities for bulk products are coordinated with Alfa-Laval and are connected to the procurement and long-term use activities of a handful of food companies. On another level, Pharmacia activities for separation product, pharmaceutical and diagnostics R&D, production and sales are further differentiated as diagnostics operations are added. Stocking and physical distribution activities are integrated in the existing activity structure. With diagnostics sales, activities are interlinked with new types of procurement activities among clinical customers.

Period 1974-1982 ("System Integration Phase")

Technological events

- *The take-off of the instrumentation operations
- *The launching of integrated separation and purification systems

Effects on the activity structure

There is a major internal change of production activities in Umeå and later in Uppsala, as product development and R&D are adapted to integrated product systems with electronic components. Supply activities are partly redirected and connected to new supplies for electromechanical and electronic components. R&D activities for chemical and for instrument development are interlinked. The launching of integrated systems requires the build-up of partly new, partly refined transformation and transfer activities: technical after sales and application services. This requires the introduction of reversed physical transfer flows of products-in-repair from users, to local subsidiaries and sometimes to central support in Uppsala/Umeå. The company's user influence activities - sales, installation, services - are successively being stronger integrated and reshuffled with users' procurement, regular use and long-term maintenance activities.

Period 1982-1986 ("Diversification Phase")

Technological events

- *Integration of molecular biology fine chemicals
- *The launching of molecular biology systems
- *The emergence of new, separate R&D ventures: BioCell, Bionova, Biosensor

Effects on the activity structure

R&D activities for the new biotechnological area molecular biology are interlinked, recombined and integrated between Wisconsin (P-L Biochemicals), Uppsala and Umeå. Physical transfer flows from Wisconsin to Uppsala are built up. Physical transfer and stocking activities are integrated with and adapted to existing flows for separation products. Former transfer and sales activities for molecular biology products in Europe and other, non-American regions are integrated with established Pharmacia operations. R&D and production activities for integrated molecular biology systems - new instruments and fine chemicals - are coordinated. New user influence activities - sales and marketing - are developed,

partially integrated with separation product sales activities, and are integrated with academic researchers' procurement and use, and their gene technology R&D activities.

Period 1986-1989 ("Merger and Consolidation Phase")

Technological events

*Fusion and restructuring of two separate production systems and activity chains, with similar technological bases

Effects on the activity structure

Integration and adaptation of LKB's activity chains in existing Pharmacia structure. Linking, merging and adapting internal R&D, production, purchasing, marketing, distribution, management and administration activities. The focus on horizontal fusion of activities leads to loss of vertical coordination and looser links between activities in the vertical marketing channel. The fusion results, in some parts, in a radically changed activity structure: production and R&D activities in Sweden, Finland and Britain are interlinked with existing Pharmacia activities. Most physical flow and user influence activities of LKB are integrated with existing Pharmacia activities and principles.

Period 1989-1993 ("Reorganization Phase")

Technological events

*Operational integration and de-integration of management and administration activities: establishing and dissolving a new management and administration structure for biotech, diagnostics and infusion instrument operations.

*Rationalization of the whole integrated, R&D, production and distribution system

*Divestment of technologies

Effects on activity structures

Reduction and concentration of R&D and production activities and stronger links between R&D and production. Transfer of local stocking activities to Uppsala. Introducing direct physical transfer from central stocks to customers. Adapting and linking the physical distribution activities to new integrator's transportation activities. Differentiation of the user influence activities and the links to customers' - key accounts' and non-key accounts' - purchasing, regular use and long-term maintenance activities. Adding new internal service activities and linking and connecting to users' long-term maintenance activities. Reshuffling and relinking of local and central marketing, sales and other customer influence ("persuasion") activities. Uncoupling biotech supply activities from non-biotech production, distribution and management activities.

Period 1993-1995 ("Integration Phase")

Technological events

*Change and integration in the company's and in the users' production system: Pharmacia Biotech moves towards integrated R&D, production and distribution, while customers move towards integration of laboratory scale, pilot scale and process scale production activities.

*Emerging technological ideas: moving towards molecular diagnostics

Effects on the activity structure

Reorganization and stronger links between the company's laboratory scale and process scale production and distribution activities. Moving towards internal integration of customer influence activities for all product flows; i.e. for laboratory, pilot/preparatory scale and process scale products and services. Connecting all phases in the customers' use of laboratory, pilot plant and process scale supplies. Moving towards integration of customers' procurement activities and the company's R&D, production and inventory activities.

In the course of the emergence of Pharmacia's biotech channel, the *resource structure* goes through a number of successive changes. Interconnected with the technological and activity changes, the internal resource structure is extended, changed and adapted. In the production system of the moving internal channel context the actors control a number of interconnected, heterogeneous resources. Different actors control different transfer and transformation resources.⁷ Various resources are connected to the internal channel actors and channel activities, e.g. human, technical, financial, procurement and marketing resources:⁸

During the innovation phase between the early 1940s and 1959, specialized human and technical R&D resources for chromatographic separation emerge with the cooperation between Pharmacia and Uppsala University as foundation. The procurement and the production, i.e. internal transformation resources, emerge also from the established pharmaceutical, dextran production. The R&D personnel form the foundation for the sales, marketing and application service resources during the subsequent period, 1959-1967. The sharing of internal management, administration and production resources with other internal (pharmaceutical) units is coupled with an increased specialization of R&D and marketing and sales activities during the period. The start of production of instruments and process scale chemicals is another factor leading the increased resource specialization. This trend continues 1967-1974. The year 1967 is the start of the specialization and separation of procurement, production and R&D resources - human and technical - for chemicals and for instruments. (The new Umeå instrument factory is opened).

⁷Håkansson, H. and Johansson, J., "A model of industrial networks", In: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 28-34, 1992

⁸Gadde, L-E. and Håkansson, H., "Analysing change and stability in distribution channels - A network approach", (In: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 166-179, 1992)

The specialization of marketing and sales resources and the decoupling from other internal marketing resources continue.

The take-off of instrumentation and product system integration in the period 1974-1982 is coupled with major changes in technical production resources, introducing for example electronics in the products and production. It is also connected to changes in the procurement resources. In the distribution and marketing system, new human and technical resources for technical, after sales services are invested in. When the company enters the 1980s, the period of acquisitions, mergers and alliances starts. Knowledge, human and technical resources, and procurement and marketing resources for molecular biology business are added to existing resources for separation and purification. Next, the LKB merger means that the resources of a competing company's production system is integrated with existing resources. The fusion of resources is immediately followed by the start of a radical rationalization of production, distribution and marketing resources. The rationalization and slimming of internal resources continues in the next period, after 1989. The personnel is reduced, production resources are reduced as factories are closed, warehouse facilities and stocks are radically reduced and the resources connected to certain technological areas are divested as companies are sold.

The development the new biotech company follows a general pattern in which resources for the biotech operations emerge from the existing resource structure for dextran research and pharmaceutical production, 1959 and onwards (emergence and decoupling from existing, pharmaceutical R&D and production). Next, the growth of the operations is coupled with both a growth and an increased specialization of resources. The biotech operations develop to be a separate business venture around 1967 and onwards. (expansion and specialization of the biotech resource base). Thirdly, the continued growth of the internal resource base in the channel is successively complemented with and replaced by an emerging rationalization process, 1986 and onwards (reorganization and rationalization of existing resources in the biotech channel). The LKB merger process will be an important turning-point and start of a more efficient use of internal resources.

A TYPOLOGY OF TECHNOLOGICAL CHANGES

The emergence and change of an industrial marketing channel is intimately connected with long-term technological shifts, with chains of cumulative technological events and with small-scale, incremental technical changes and adjustments. Many of the more obvious changes that Pharmacia Biotech's internal marketing system for biotech products goes through in the 1990s are directly related to preceding technological shifts and technical changes.

A long-term technological shift which radically influences the internal marketing channel structure of Pharmacia Biotech is the shift from traditional, chemical based pharmaceutical R&D and production to the dextran based multi-business operations. After this, there is a move into the new, modern biotechnology, functioning as integrating factor for the new product divisions of Pharmacia.⁹

Changes of a more technical nature at a first cursory overview appear less significant than the technological shifts, as regards the effects on the internal marketing channel structure. However, variability in the channel structure is also a matter of small scale technical changes, e.g. in products and product systems. The successive *up-scaling* of laboratory size chromatography instruments, for example, works in an intimate interplay with changes in the internal production and organization structure, manifested e.g. in the creation of the new sub-division for industrial systems, BioProcess, in 1982. (Channel activities and resources are thus linked to new customers as the process scale instruments are installed in the production processes of new types of industrial customers. The chromatography technology remains largely unchanged, but the successive technical up-scaling of the instruments is linked to an organizational, channel de-integration process *within* Pharmacia Biotech and to new customers and exchange relationships being connected to the differentiated internal biotech channel.)

Long-term technological shifts, specific technological events, and changes of a more small-scale technical nature evolve in the internal, marketing system. They function as underlying driving forces, altering the internal activity and resource structure of the integrated production-distribution-use system.¹⁰ Every industrial marketing channel will have a unique collection, "typology", of such technological changes. The underlying technological change processes accumulating and transforming over time in Pharmacia

⁹During the late 1970s, the idea of the so-called "New Biotechnology" as integrating factor for the different internal Pharmacia divisions emerges. However, this cannot obscure the fact that in the organizational network, the forces of disintegration of the main Divisions are successively being accentuated. The disintegrating forces separating the Pharmaceutical, the Diagnostics and the Biotech Divisions and marketing channels organizationally, work against the earlier internal technological links. The stable, institutionalized idea about the strong technological interdependence between the three divisions is counterforced during the 1980s; the Biosystems project in the beginning of the 1990s, can be regarded as the last attempt to keep the Biotech organization as a unit technologically (and organizationally) integrated with the diagnostics (while separating from most parts of the pharmaceutical) organizations. The big changes in the corporation's external network orientation emerge as the main disintegrating force affecting the historical, dextran based, technological links between the three divisions.

¹⁰Successive shifts in technologies - e.g. the major shift from synthetic chemicals and traditional pharmaceutical activities towards biologically based compounds and the so-called New Biotechnology - have been inseparably linked with the changing internal marketing network. These changes are somewhat more difficult to link to dramatic events and the evidently incremental nature of the processes affects the attention drawn to them. However, the joint effects of these long-term changes, the technological events and the technical adjustments not only change the contents of the "products" that are distributed in the changing marketing system, but alter also the activities, the internal resource structures, and the exchange relationship contents of the internal marketing and distribution system.

Biotech encompassed capital investments, day-to-day rationalizations and product development, and affected both products and processes:¹¹

1. Long-term technological shifts
2. Technological diversification processes
3. Technique/technology and product extension processes
4. Product system and functional orientation processes
5. Product up-scaling/"industrialization" processes
6. Technical efficiency/performance improvement processes
7. Changes in (inter-divisional) technological links

The company becomes part of a major technological shift as the separation products to an increasing extent are used in sectors of the emerging, "new" biotechnology (1). Capital investments are made in new product and process technology in molecular biology, related to this shift (2). A number of product development processes and day-to-day rationalizations lead to an extension of the range of products and services (3, 4). They also lead to product development processes whereby industrial products are developed and improved (5) and through product development and day-to-day rationalizations the original chromatography and electrophoresis techniques can be improved (6). The product development processes also encompass shifting technological links between Pharmacia divisions and technology areas; biotechnology, pharmaceuticals and diagnostics (7).

1. Long-term technological shifts

Pharmacia's strategic redirection from pharmaceutical operations based on synthetic chemicals toward biologically based compounds, dextran technologies and the new biotechnology is a process extending over decades. It arises in different ways and with different time spans in all the major divisions and internal channels. The separation product division's instrument and separation media distribution is linked to laboratory customers involved in the new biotechnology's R&D activities, starting in the beginning of the 1970s. Concurrently, the pharmaceutical division's strategic redirections include a shift towards biologically based products resulting in e.g. the launching of new products in the beginning of the 1980s. The same applies to the products launched by the diagnostics division. A major step into the new area of molecular biology is taken by the separation product division as it acquires P-L Biochemicals Inc. in 1982. The whole Pharmacia Corporation's move into the new expanding biotechnology is a process that results from separate changes in each of the three main divisions, and from changes in the way knowledge and technologies in all three areas are combined internally. In 1980, these technological interdependencies and the fact that Pharmacia is now totally engaged in the "new biotechnology" is officially established.¹² The move towards the new

¹¹Categories presented in: Håkansson, H.(ed.), *Industrial Technological Development - A Network Approach*, London: Croom Helm, 1987

¹²Annual report 1980, (transl.): "Fortia is no longer a traditional pharmaceutical company. Instead we are active in several different areas within the rapidly expanding biotechnology, something which gives us the

biotechnology continues in all three divisions. However, the technological - and organizational - links and crossfertilization opportunities between the three divisions are successively de-emphasized. The integrative power which the move towards the new biotechnology has on the internal activity and resource structure of the three channels for pharmaceuticals, diagnostics and biotech supplies, changes and diminishes during the rest of the 1980s, as each of the three divisions grows and develops its own marketing channel and network positions, within its own technological niches of the global biotechnology network.

2. Technological diversification processes

The internal R&D ventures and the diversification achieved through the take-over of other firms in the 1980s and 1990s, push the corporation's three main divisions in new directions. In the case of the biotech division, Pharmacia establishes three new cooperative ventures in Uppsala during the 1980s: BioCell, Bionova and Biosensor, all linked to diversification within existing technological areas. In the acquisitions of P-L and LKB, steps are taken into the molecular biology and amino acid instrument and spectrophotometry areas (the latter through Biochrom acquired in the LKB deal). In the separation product channel, the internal effects, manifested in altered activity and resource structures, vary between types of technology extension processes. The BioCell, Bionova and Biosensor ventures are kept separate from existing activity chains. The integration of activities and resources related to already existing technologies becomes more complicated. The effects of integrating LKB units and activities, dominated by the same two basic technologies as Pharmacia Biotech (electrophoresis and chromatography), become much more problematic than integrating e.g P-L Biochemicals, with a different technological background. Over time, the technological diversification process follows patterns in which internal/cooperative development and "external" (through acquisitions) extension alternate, dominating different periods.

3. Technique/technology and product extension processes

The new invention, the separation and purification technology, that triggers the emergence of Pharmacia Biotech - gel filtration chromatography - remains an important backbone of the business. Successively, new separation techniques based on other technologies are added and the old ones are refined, affecting the whole chain of production, distribution and use activities. The maturation and standardization of the old technologies, mainly chromatography and electrophoresis, are coupled with the development of new refined purification techniques. The range of instruments, separation media and additional accessories like columns, fraction collectors and pumps, grows steadily, but is radically extended and changed in connection with acquisition events during the 1980s. The acquisition of P-L in 1982 and the integration of the product ranges during the subsequent years result in a combined range of products consisting of around 400 products in the laboratory product unit (instruments, chemicals and accessories), 65 products in the process product unit (instruments, chemicals and

possibility of cross-fertilization between different activity areas. We will therefore give priority to ideas and projects in which a broad spectra of applications are possible."(p.3)

accessories) and around 1500 products (mainly chemicals) in the molecular biology unit of P-L Biochemicals. The next jump in the extension of the product range occurs as LKB's product ranges (including Wallac's and Biochrom's) are integrated with Pharmacia Biotech's, following the acquisition in 1986. LKB and Pharmacia Biotech product overlaps are considerable:¹³

Product area	LKB market share	BTG market share	% overlap of LKB prod.	% of LKB total assort.	% overlap of total assort.
Liquid chromat.:					
-instrument	20	30	75	35	26
-media	40	10	50	15	8
Large scale chromat.:	30	1	100	5	5
Electrophor.:	8	30	0	40	0
	10	10	0	5	0
Molecular Biology:				Total overlap:	39

The concurrent integration and radical reduction of product ranges that follow the merger change the assortment of instruments, chemicals and accessories, and mainly in the established chromatography and electrophoresis areas. The broad assortment of products in stock (active and inactive) that results from the merger creates distribution inefficiency and control problems which in 1989 develop into the distribution and capital management programs, in which the total product range and the internal physical transfer activity structure are radically changed. In 1989, when the rationalization starts, only 50 percent of the 24000 products in stock are still active, and only around 1000 of these dominate sales.

4. Product system and functional orientation processes

The global business venture for separation products originates in the innovation of a chemical substance. The structure of the internal marketing channel activities and resources are affected by the incremental process to extend and modify the contents - the products and services and integrated systems - that form the backbone of the new distribution channel. The progress and diversification of techniques and separation technologies, the up-scaling and efficiency and effectiveness improvements in existing instruments together contribute to the physical changes in products, to the successive addition of various application and technical services to support the new products, and to the system integration of instruments, chemicals and services. The increasing functional and systemic orientation in the channel towards the actual products exchanged, which escalates during the late 1980s and early 1990s, progresses throughout all phases. During the later phases, major attempts are made to

¹³Source: *The Acquisition of LKB in 1986*. Wallberg & Wallberg, MBA Thesis, Uppsala University, April 1991.

coordinate activities of all elements - instruments, chemicals, application services, and technical services - and establish a strongly integrated, systemic and functional business orientation. The incremental process encompasses "jumps" in the internal build-up of resources and coordinated activities for the separation products, the new services and the integrated product systems (as in the merger with LKB).¹⁴ The steady growth of the product range for instruments, for chemicals and for application services is coupled to an increased interest in developing technically integrated products during the late 70s and 80s. Instruments, chemicals and supportive instructions, manuals, etc. together with the help of application service activities move the internal operations towards increased, technical, system orientation.¹⁵

5. Product up-scaling/"industrialization" processes

Strongly connected to the internal organizational diversification process of Pharmacia Biotech - the creation of three separate sub-units for laboratory instruments, for industrial applications and for molecular biology equipments - is the successive up-scaling of established laboratory scale purification equipment. The technical process of up-scaling chromatography instruments and the production of "bulk" chemicals that is already initiated in the late 50s and takes off during the 1970s, is also a sign that the technical inventions are being transformed into industrial, biotechnical applications. Similar to the situation in 1959, when the new separation media is invented, the process of technical up-scaling is initially focused on chemicals. The up-scaling of instruments gains speed in the 1980s when new variants of the so called FPLC laboratory instruments are adapted to industrial applications. A whole range of laboratory instruments, pilot plant instruments and full process scale instruments are developed, following the launching of the BioProcess system in the middle of the 1980s and of the complementary BioPilot system in 1987. Despite the up-scaling, these are still to a large extent off-the-shelf products. During the latter half of the 1980s, another step in the up-scaling process is taken as Pharmacia BioProcess launches the BioProduction concept. It is a customer specified, large scale system for industrial manufacturing, designed, constructed, tested and installed in close cooperation with the system-user. It is pre-assembled and tested, and completed with full engineering documentation. Attempts to partly out-source the up-scaling activities are initiated in 1986, when the BioProcess division signs an R&D and production agreement with Alfa-Laval. The up-scaling processes continue, increasing the specialization of laboratory scale and process scale activities and resources. The trend is broken in the 1990s, driven by the customers, as it is discovered

¹⁴On paper, LKB's and Pharmacia's support organizations for application services and technical services indicate a high degree of resource complementarity before the fusion: LKB's investments in technical service resources equal Pharmacia Biotech's large investments in application services. However, due to difficulties to realize these complementarities in the merger process, no "balanced" support resource structure is achieved for the various "product contents".

¹⁵It is not until the late 80s and the so-called regionalization project in the early 90s that a new, not technical but organizational, "functional orientation" towards the activities and resources for instruments, chemicals, accessories, application services and technical services begins to emerge. To simplify the process: the gradual build-up of *separate* product and service ranges and activities changes towards an increased interest in *technical integration*, which in turn changes into an increased focus on internal, organizational coordination of the activities and a *customer focused, functional orientation* and coordination of the production, distribution and long-term use activities.

that closer links can be achieved with customer activities if purification activities on a laboratory, preparatory and process scale are more tightly coordinated.

6. Technical efficiency/performance improvement processes

The rapid growth and expansion of Pharmacia Biotech's product range during the 1980s is partly due to the rapid changes in technical improvements in products and systems. Both chromatography and electrophoresis have become standard technologies for separation and purification of biomolecules in laboratories world-wide. Behind the stabilization and legitimation of the basic technologies, there is plenty of room for efficiency improvements, concerning speed as well as correctness in separation. An important step is the development of the so called FPLC technique (Fast Protein Liquid Chromatography), launched in 1981, which is specially adapted to purification of biological substances. A similar step in the electrophoresis area is taken in 1986 when a new and more efficient generation of electrophoresis products - the PhastSystem - is launched. The successive performance improvements in existing products generally require adaptations of the various application and technical service support activities and resources.

7. Changes in (inter-divisional) technological links

The technological links between the biotech operations and the diagnostics and pharmaceutical operations also change over time. Both Sephadex and the first method for diagnostic analysis, the so called RIA-method, are partly sprung from the pharmaceutical operations, but in collaboration with external organizations and researchers. The internal technological links are strongest in the 1960s and 70s when the separation products and the first diagnostic tests are created. Successively, the internal links between R&D and production activities weaken. (The links remain, however, on a management level and on the "institutional" level - the *idea* of a strong, common ground in the new biotechnology is firmly established in the company.) During the first half of the 1980s and onwards, the internal technological links change character. As the separation and purification technologies mature and become standard methods used in laboratory research, the pharmaceutical division's options to choose other suppliers than the Separation Product Division increase. The internal supplier-buyer activity links lose some of their original importance. This also applies to the use of biotechnical process equipment in the production of biotechnology-based pharmaceuticals and diagnostics. During the latter half of the 1980s and the beginning of the 1990s, the dependence of the pharmaceutical division on process equipment and technologies from Pharmacia BioProcess decreases.

The technological changes are interconnected, and in parts emerge concurrently. They connect to shifts in the internal activity and resource structure of the customers. Two linked technological changes have particularly strong effects on the activity and resource structure connecting the company and its customers among the growing group of industrial, pharmaceutical companies: the up-scaling and industrialization of the original

gel filtration invention and subsequent separation techniques, and the successively increasing product system integration and functional orientation. The two technological change processes connect to changes in the internal activities among the pharmaceutical customers: a successive internal integration of laboratory, applied research activities with pilot plant scale and process scale production activities, and a successive, internal integration and coordination of procurement, long-term use and maintenance activities for instruments, chemicals, and technical and application services. The two processes on the supplier side and the two processes on the buyer side are important determinants of the emerging internal activity structure of the biotech equipment channel, towards the end of the 1980s, when the marketing change episodes start.(Figure 6.1.)

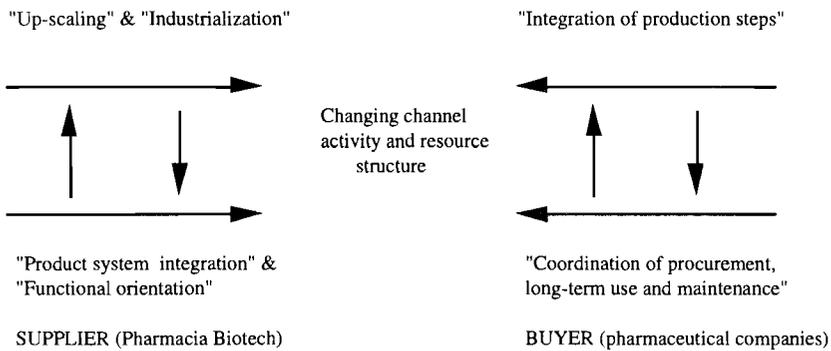


Figure 6.1. Technological changes affecting the channel activity and resource structure

The up-scaling/industrialization process is characterized by the emergence and successive internal integration and coordination of activities for laboratory, preparatory and full process scale separation supplies. This process interacts with the successive technical integration and internal coordination of the activities connected to chemicals, instruments, and application and technical services. Towards the end of the 1980s, the important pharmaceutical customers start coordinating and integrating the applied laboratory research activities with preparatory, pilot scale production and full, process-scale production in order to become more efficient. Concurrently, their internal procurement, long-term use and maintenance activities are coordinated internally, leading to coordinated procurement of supplies and services for the integrated research and production process. In this emerging structure, the marketing changes of the 1990s develop.

The up-scaling processes in Pharmacia had already started internally (in the cooperation between Uppsala University and the research laboratories of the company) before the first separation products are launched in 1959. Up-scaling processes develop in cooperation

with food companies' production departments, but are to a large extent driven by Pharmacia (and Alfa-Laval). In the late 1980s, the situation is different; the product system integration and functional orientation becomes customer driven. The rising development costs among the industrial, i.e. pharmaceutical, customers and need for more efficient integration between research and production steps, drive the changes processes when the 1990s begin.

CHANGE IN ACTIVITY STRUCTURES

The emergence of Pharmacia Biotech's biotech supply operations can be divided into three broad phases: the period from 1959 up to 1967 is on the supplier side dominated by the efforts to set up a specialized production structure for laboratory, and to some extent, process scale chemicals and later instruments (together with Alfa-Laval). The production of laboratory products and the production of process scale products develop in parallel and the products are successively extended: starting with chemicals and adding instruments and application services. The period from the mid 70s up to the early and mid 1980s is dominated on the supplier side by technical integration and product diversification processes. Laboratory scale instruments, chemicals and services are successively being integrated, and in parallel a similar process develops for the pilot and process scale supplies and services. From the mid 1980s, and accentuated in the early 1990s, Pharmacia Biotech moves towards an increased functional orientation and increased vertical coordination, linking vertically and horizontally within the organization, the laboratory, pilot and process scale activities.

The pattern of interlinked transformation and transfer activities changes in the channel. The intermediate physical transfer activities, the stocking activities, and channel marketing and sales activities move through different stages of development. The company's production activities and the set of users' production and use activities are altered over time, in interaction with the intermediate transfer activities.

The physical distribution and stocking activities are during the first phase born within the physical transfer and stocking activities of the established pharmaceutical channel organization. The emergence of instrument production activities means the start of a uncoupling process of the production activities from the pharmaceutical activities, followed later by an uncoupling also of the chemical production activities. The physical transfer and the central and local stocking activities remain partially integrated with Pharmacia's other stocking and transfer activities, for pharmaceuticals and for diagnostics. The transfer activities linking the emerging biotech company with the

growing number of customers have to be adapted to many different types of production and use situations (Figure 6.2. provides a simplified picture).¹⁶

<u>1959-1967</u>	<u>1967-1982</u>	<u>1982-1995</u>
Lab. separation, basic and analytical academic research	Lab. separation, basic and analytical academic research	Lab. separation, basic and analytical academic research
Process scale separation, protein purification in pharmaceutical and food production	Lab. separation, semi-analytical academic education and research	Lab. separation, semi-analytical academic education and research
	Lab. separation, clinical routine testing, private and public hospitals	Lab. separation, applied academic research
	Lab. separation, basic and applied research in private and public hospitals	Lab. separation and molecular biology research and service production in service labs and private R&D companies
	Lab. separation, pharmaceutical customers' analytical research	Lab. separation, clinical routine testing, private and public hospitals
	Preparative, lab. separation, pharmaceutical customers' research and production	Lab. separation, basic and applied research in private and public hospitals
	Process scale separation, pharmaceutical production	Lab. separation, production of legal test references, governmental control labs
		Lab. separation, basic and applied research, governmental control labs
		Lab. separation, pharmaceutical customers' analytical research
		Preparative, lab. separation, pharmaceutical customers' research and production
		Process scale separation, pharmaceutical production
		Production of other bioproducts or lab. services, other private companies and labs

Figure 6.2. Pharmacia Biotech's links to an increasing variety of user production activities

The linking with customers' production and use processes is not uninterrupted. Contextual changes, e.g the LKB merger, temporarily reduce the increasing integration of

¹⁶The situation is in some parts not as clear cut as described in the figure. For example, there emerges at an early stage a set of clinical, health care customers. What the figure above all shows is the *increasing variety* of user situation that the company is connected to.

the transfer activities. Transportation problems, deteriorating order information routines, stocking problems, etc. during the company merger, reverse the ongoing integration process. The 1990s introduce a shift in the links between Pharmacia Biotech's and the customers' (especially the chosen key account customers') production and use activities. Direct physical transfer with centralized stocks, and improved information exchange and control routines in the channel change the linking of activities.

The changes in the transfer activities also include a transformation of the customer influence activities, sales and marketing activities, and the way they become linked with the users' procurement, long-term use and maintenance activities. During the course of the process, the various user influence activities are changed and regrouped, and two central processes can be distinguished: the internal localization and differentiation of marketing support activities, and the linking of marketing support activities to users' long-term use cycle (procurement, use, maintenance and repurchasing activities).

The "vertical" dimension of change in the company's user influence activities includes shifts in the localization of marketing support and sales activities in the vertical channel of inter- and intraorganizational units linking the company and the users. Over time, the extension or reduction of organizational units become connected with the division and placement of control of marketing support activities between units: e.g. between central, regional, and local units. Within given organizational structures (e.g. central-regional-local) marketing support activities of different kinds are reshuffled over time. The "horizontal" dimension embraces the differentiation of support activities over time. There is a successive change in base for differentiation. Starting with a product and technology based differentiation of user influence activities (laboratory product support, process equipment support, and molecular biology support), the company moves in the 1990s towards a customer driven adaptation of marketing support activities (a new local marketing support divided into key accounts vs non-key accounts and a new central division into Process, Systems, Consumables and Reagents in 1993 are the apparent signs of this.)

The internal change of user influence activities in the channel also concern the way the activities over time are being linked to users' procurement, use, maintenance and repurchase activities. There is over time a change in the pattern of indirect and direct links to user activities. While the laboratory marketing support activities of the central units remain indirectly linked to the user activities via the regional/local units' support activities, the process installation support starts to include direct links also between the central unit's marketing support and the customers' procurement, installation and start-up activities.

There are also alterations in the degree to which marketing support and sales activities and user activities are integrated or made "parallel". It is not until the 80s and in the reorganization processes that the technical service support and the users' long-term maintenance are coordinated with the sales activity contacts between the company and the users. These processes of vertical shifts in localization, in horizontal differentiation and in the linking to users can be generalized into the following steps:

1959-1967: Localized marketing support and little differentiation.

During the first period after the launching of the gel filtration method and product in 1959, both central (Uppsala based) and local user influence activities (sales, marketing, information, application support) are localized and directly and intimately linked and integrated with the academic laboratory users' research activities. The boundaries between marketing, sales, application support, procurement and use by the buyer and seller are diffuse. The new marketing and user activity structure builds on and strongly resembles the cooperative R&D activity structure of the "innovation phase" in the 1950s, preceding the launching of the new product.

1967-1982: Central and local marketing support and start of product based differentiation.

During the 1970s, and due to rapid growth, expanding marketing support and sales activities are located both centrally and locally. The differentiation between support for process equipment use and laboratory equipment use starts, establishing successively more indirect links between central marketing support and the user activities of the laboratory supplies, as compared to the central support activities for process supplies which often need direct links to user activities. During this period, the increased product system integration increases the need for technical services; local marketing support activities are complemented with technical services and repairs, linking to the users' own internal maintenance activities.

1982-1995: Central and local marketing support and increased, product based differentiation (with movements towards central, regional and local marketing support, and a customer based differentiation in the 1990s.)

During the 1980s, the division into central and local marketing support and sales remains, but the internal differentiation of marketing support activities takes another step when molecular biology products and activities are added and integrated in the internal biotech channel. This also means an increased geographical differentiation of the central marketing support activities. (P-L) There is a growing specialization into sales, marketing, application support services and technical services. Due to user differences (academic, health care, governmental, industry) local adaptations of marketing support are necessary. During the 1990s, there is a regrouping of marketing support activities into central, regional and local levels (including sub-regional). The product based differentiation of support activities (laboratory, process, molecular biology) is changed in 1993 towards a customer based division of support activities (key accounts & non key-accounts (locally), and Process, Systems, Consumables & Reagents (centrally)). Support activities are adapted to the stronger links between

internal production activities among industrial key accounts (who integrate applied research, preparative and process activities). Efforts are made to reduce the gaps and increase the continuity in the links between marketing support activities and users' procurement, installation, use, maintenance, and repurchase activities. There is a move towards increased differentiation of marketing support and of links to key accounts' and non-key accounts' activities.

The reorientation of Pharmacia Biotech's organization from 1989 is to a large extent driven by adaptations to the changing activity structures of one of the major customer groups, the pharmaceutical companies. Simplifying the picture, the driving force for changes in the distribution activities can be said to be transferred from the manufacturer, 1959-74, to the industrial users from 1982 and onwards, and accentuated during the 1990s (Figure 6.3.). When the marketing reorganization processes start 1989-90, the company has to leave behind its old, product and technology based (chromatography products, electrophoresis products, etc.) marketing support structure.

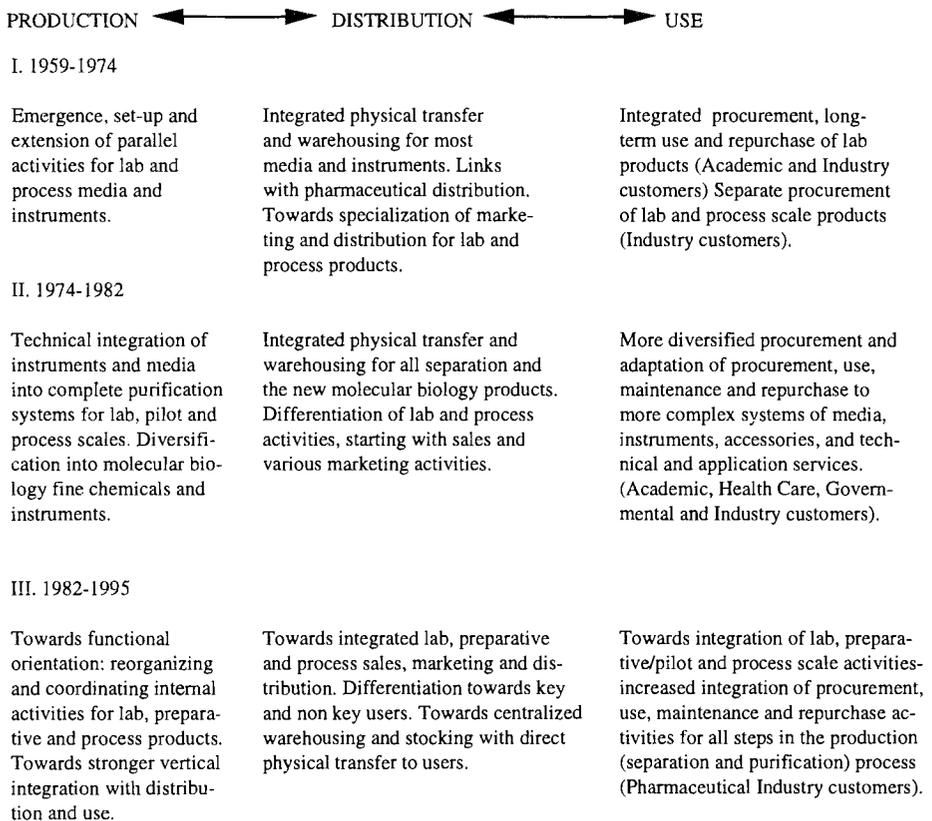


Figure 6.3. Summary of general changes in the activity structure

Over time, there are different patterns of links to other activities, outside the sphere of the biotech supplies which affect the emergence of the internal, industrial channel. Hidden behind the description of the technological changes and the changes in the activity structure, is also the fact that the chain of interlinked actors controlling the activities, at producer level, between the production and the users, and at the user end, are altered and redefined over time. The internal network of actors controlling parts of the activity structures is transformed.

A CHANGING INTERNAL ACTOR STRUCTURE - FROM A TIGHT SOCIAL R&D NETWORK TO AN INTERNATIONAL CORPORATE NETWORK

A changing set of users becomes connected over time to the marketing system of the new biotech company: academic, industrial, health care and governmental institutions. Concurrently, the structure of Pharmacia Biotech's organizational channel units involved in the production and transfer of the biotech supplies also changes. The marketing system, connected to the underlying, new and dynamic technology, is not an easily defined and delimited system, with static organizational units. Changing technologies and changing definitions and delimitations of the internal organizational units, the "channel actors", go hand in hand. There is the complexity of an actor structure developing around the commercialization of a new technology. And secondly, there is the complex process of coupling to and uncoupling from other "internal" units.

Around a new technological invention emerges a new internal actor structure, but it is not born in a vacuum. New combinations of existing actor constellations evolve, and existing "actors" are merged, divided, regrouped and redefined, following and interacting with the successive technological changes. A new organizational structure successively emerges, interdependent with successive technological events and changes:¹⁷

Period 1941-1959 ("Innovation Phase")

A tight inter-personal R&D network emerges around the process of developing the new gel filtration separation method. A network of researchers at the Department of Biochemistry at Uppsala University (Arne Tiselius, Björn Ingelman, Anders Grönwall, Jerker Porath, Per Flodin, Bertil Gelotte, Arne Emnéus, and others) forms the inner core of the actor network emerging around the new separation method. Some of the actors are connected to more than one research area, e.g. blood plasma research

¹⁷We here use the same division of phases as for the technological events and shifts, with the exception for the last which covers the whole period up to 1995. In reality, the interdependence and mutual adaptation of technological and organizational structures do not follow each other so closely and there are never any direct correspondence and immediate adaptation between actor structure and production system. There are in reality different lead and lag effects of adaptations between the organizational actor structure, and the production system structure and changes in technological dimensions. (See for example the many lag effects of the LKB-BTG merger 1986-1990, with constant adaptations of organizational and production system structures.)

and separation technology, connecting technological achievements.¹⁸ With the move of the company to Uppsala, the interactions between researchers at the Research Laboratories of Pharmacia and the Department of Biochemistry intensify, many of the university researchers are recruited and join the new Pharmacia R&D department. The core of this inter-personal university R&D network successively develops into an informal and formal, dyadic inter-departmental relationship between Pharmacia and the University.

Period 1959-1967 ("Implementation Phase")

Based on the interpersonal R&D network for gel filtration, the new Sephadex product and the method is diffused through an international, academic network of personal contacts, "a network of friends", as stated by Pharmacia personnel. The roles of the actors in this international, interpersonal researcher network are varied and overlapping; there are often diffuse roles between those selling, marketing, teaching, buying and using the new product and method. The launching process and the complementing of the dyadic, inter-departmental core with an international, inter-personal network of actors in Pharmacia is taking place in, and complemented with the use of, the established net of actors and contacts between pharmaceutical HQ departments (Export Department/ Pharmacia International) and foreign subsidiaries. Completely new Sephadex units are established in the new emerging subsidiaries.

Period 1967-1974 ("Product Extension Phase")

Some of the core changes in the company's internal channel actor structure connect to the diversification of production and the general growth of the separation product operations. Two integrated R&D/production organizations emerge in Uppsala and Umeå. The core of the intermediate, inner channel actor structure becomes the growing, specialized separation product groups in the largest subsidiaries, e.g. in USA, Germany and Great Britain, complemented with agents in other large markets, e.g. Seikkagaku in Japan. In the largest market, USA, the Piscataway sales units are complemented with new local sales sub-units, increasing the local penetration. Concurrently, new specialized separation product support units begin to emerge in the Uppsala HQ support organization, including a wholly new management unit for Pharmacia Fine Chemicals. A more visible vertical inter-group actor network for separation products begins to emerge.

Period 1974-1982 ("System Integration Phase")

The rapid growth of the operations continue to affect the internal actor structure. Former agents for pharmaceuticals, diagnostics and biotech supplies are increasingly replaced by new subsidiary organizations. Locally, three separate units are most often retained for the three, but with a joint

¹⁸The emergence of the actor structure is in line with Astley's & Van de Ven's comments on Blau's (Blau, P.M. *Exchange and Power in Social Life*, New York: Wiley, 1964, p.284) social exchange image of part-whole relationships and the dynamics inherent in overlapping social networks. It is not an image of concentric circles with mutually exclusive memberships at each level: "Instead it is one of intersecting circles because networks of social relationships that define group structure are interpenetrating and overlapping, and the boundaries between them are neither sharp nor fixed". They quote Blau, who states that "groups expand and contract with the mobility of members in and out of them"(Astley, W.G. and Van de Ven, A.H., "Mapping the Field to Create a Dynamic Perspective on Organization Design and Behavior", in: Joyce, W.F. and Van de Ven, A.H.(eds.), *Perspectives on Organization Design and Behavior*, New York:Wiley, pp.427-468, 1981)

management group. With the take-off of instrumentation and sales of integrated product systems comes the start of internal diversification. At HQ and subsidiary levels emerge new, differentiated support units for separation product sales; sales units, marketing support units, application service units, technical service units. Concurrently, there is also a take-off of differentiation into Laboratory Equipment units and a new Industrial Product Group within the biotech channel.

Period 1982-1986 ("Diversification Phase")

The internal actor differentiation into separate laboratory and process separation support units continues with the acquisition of P-L Biochemicals. A new production and central, marketing support and management unit in Wisconsin, USA, is added to the channel. Former local P-L sales units or agents are dismantled or merged with or connected to Pharmacia's. In some of the larger subsidiaries, the internal diversification and creation of specialized sales units continues as the sale of molecular biology fine chemicals is added. Only loosely coupled to the biotech channel, three Uppsala based, separate R&D companies emerge during the period: BioCell, Bionova, Biosensor. In addition, the joint venture company BioLink with close links to the Process Separation Group (and Alfa-Laval) is established towards the end of the period. The process of finding a functioning formal organizational structure for Pharmacia's pharmaceutical, diagnostics and biotech groups, affects the organization of biotech units at HQ level. Most subsidiaries still keep a separate unit for the biotech operations.

Period 1986-1989 ("Merger and Consolidation Phase")

The change in channel actor structure following the merger with LKB is coupled with an internal rationalization process; new production and HQ units are first added in Sweden, Finland, France and UK, later the Swedish Bromma unit is first merged with Uppsala and Umeå and subsequently closed down. With very few exceptions, former intermediate LKB channel actors, the subsidiaries, are transferred to and merged with local Pharmacia units. The BioLink organization is dissolved. The period is characterized by uncertainty concerning the new internal actor structure, at HQ as well as on subsidiary level.

Period 1989-1995 ("Reorganization Phase")

The period is characterized by reorganization processes, changing the vertical actor structure of the channel. Groupings and regroupings of product companies characterize the period (e.g. the Biosystems venture) and come to create uncertainty in the channel, at HQ and subsidiary levels, concerning what units the biotech channel actors should be connected to. A separate biotech channel emerges from 1992 with production and connected support units in Wisconsin, Uppsala, Umeå, Cambridge, and later USA, and with minor, additional units in Sweden and Norway. The former three product companies for laboratory, process and molecular biology products are successively regrouped to form central product divisions (Process, Systems, Consumables and Reagents). The new, intermediate regional channel unit in Brussels is replaced by two units, one in Holland and one in Germany. The local subsidiaries form loosely coupled sub-regional actor constellations, and are reduced to sales offices, and finally, they are uncoupled from other Pharmacia sales units. The same regrouping of internal channel units starts in other regions in the world. New internal, HQ actors are created, e.g. an After Sales Service Division and

a Capital Management Division. Internal regrouping of channel sub-units continues also at regional and local levels as new customer oriented sub-units are established (e.g. for telemarketing and for key account management).

A changing internal channel actor structure is inevitably coupled with changes in the *internal contact patterns* between the units in the new internal network. Contextual changes necessitate adaptations in the ways units interact with each other and support the counterparts' other contacts. Every new situation and structure provides new, unique characteristics, and can require a change of internal relations. The processes of integrating P-L Biochemicals in the internal network in 1982 is different from the network processes of integrating LKB in the next period, from 1986, which in turn is connected to quite different interaction changes as compared to the process of regionalizing the marketing network from 1990 and onwards.

Simplifying the processual picture, the vertical interaction patterns in the biotech channel, HQ-(regional office/sub-regions)-subsidiaries/(sales-offices)-customers, change several times during the last of the periods, between 1986 and 1993. Vertical coordination, integration and intensity and regularity in the vertical interactions vary over this period, often as a consequence of contextual changes on a company level and adaptations in the "horizontal" dimensions, i.e. in the ways the biotech channel units and activities are connected to pharmaceutical and diagnostics channel actors and activities. It is possible to discern changes in the quantitative dimensions, in the strength and regularity of the vertical contacts:

During the fusion process 1986-1989

The vertical contacts become less intense as a consequence of the strong focus on the horizontal dimensions, merging the various organizational units and divisions in the two companies' (BTG and LKB) vertical channel systems more or less separately: production-production, central support-central support and subsidiary-subsidiary. The successive reduction of vertical integration continues throughout the period, until 1989 when a number of reorganizations are started.

After 1989 and up to 1991

The centrally started change projects are partly initiated to improve the vertical coordination between the central and the local units in the channel. The implementation and start of the distribution change, the after sales service change, quality programs and more, reverse the process; central and local mobilization for the different organizational changes improve the vertical coordination and intensify the contacts. However, with the implementation of the Biosystems group and the start of the regionalization, the process enters a new phase. There is a stop in the increasing vertical integration. The whole period *from late 1990 to late 1991* and early 1992, is a period of uncertainty. For example,

there is now uncertainty about the way HQ-subsidary contacts in Europe are to be organized when the new intermediate, regional organization in Brussels begins to take shape. The reduction and increased uncertainty about the vertical contacts is also propelled by the uncertainty about the way horizontal contacts between the companies in the Biosystems group are to be organized.

From mid 1992 and onwards

The vertical contacts between central units, regional organization and subsidiaries begin to be more clearly organized, although the shift in location of the regional European organization and the reduction of subsidiaries into local and sub-regional sales offices (with new horizontal coordination and contacts between smaller groups of subsidiaries, later sales offices) continue to upset some of the vertical coordination and contacts. (The loss of vertical coordination is partly stopped by introducing linch-pin marketing managers, Market Area Managers, responsible for keeping up the contacts between the regional office and the sub-regions during the reorganization process.) However, the dissolution of the Biosystems venture means that new focused efforts can be directed at improving the vertical contacts in the biotech channel. The introduction of standardized, on-line EDI systems, the implementation of continuous contacts concerning long-term after sales services, daily direct distribution and quality improvement programs contribute to increase the vertical integration and routinize and stabilize contacts and interactions.

The vertical coordination and integration in the channel and the intensification of contacts improve radically *after 1993*, but it takes place in a different internal structure compared to the situation in 1986. In Europe, the regionalization process begins to result in a new pan-European marketing organization with new horizontal contacts between sub-regional sales offices, and contacts with a new intermediary, regional support organization. Concurrently, the decoupling from other Pharmacia companies and marketing support units gives the opportunity to focus even more on *internal* reorganizations in the whole vertical biotech channel. The introduction of the key account program is driven by the goal to reorient vertical channel contacts towards key accounts and non-key accounts.

A TYPOLOGY OF INTERNAL ORGANIZATIONAL CHANGES

The BTG-LKB merger episode illustrates the major impact of externally oriented changes on the moving, internal network context constituting the biotech marketing channel. The event and subsequent merger process result in problems, not only as a consequence of the difficulties to create a new "internal" structure for the separation product organizations, but also as a consequence of the fact that both companies are coupled to other organizations. The latter type of connections also effect the merger process and the development of a new marketing channel structure, contributing to the merger problems. The acquisition of LKB, engaged both in separation product activities and in diagnostics,

includes LKB's daughter companies, Wallac in Finland and Biochrom in England. It creates some new connections and internal tensions between Pharmacia Biotech and Pharmacia Diagnostics, which are both rapidly growing and gradually behaving more like independent companies within the Pharmacia Corporation. On the Pharmacia side, the cancelling of Pharmacia Biotech's cooperation agreement with Alfa-Laval is partly an effect of the fact that much attention are directed at other external processes, partly an effect of network tensions between the involved organizations BioLink, Pharmacia BioProcess and the Alfa-Laval company Chemap.

The impact of these types of "outer context" events and processes on the internal marketing network is considerable from the mid 80s and onwards. The actions and processes associated with the radical growth and expansion of the Pharmacia corporation between 1982-93 are dominating driving forces for the actor changes that take place in the internal marketing organization in this period, manifested in a number of successive expansion events taking place in 1982, 1986 and 1989. As the corporation grows, incorporating more companies in the group, it changes the boundary between the internal and the external marketing network context for each of the three major, traditional Pharmacia divisions.

There are also the large and small scale internal reorganizations which over time move the structural development process and internal actor structure in new directions. During the last period, these reorganizations are strongly connected to the externally oriented actions. In the end of 1974 and the beginning of 1975, Pharmacia takes the first important steps to establish three separate divisions for pharmaceuticals, diagnostics and separation products ("Pharmacia Fine Chemicals"). This internal reorganization marks the beginning of a continuous process of internal, organizational adjustments between the three, influencing not only the formal structure of the company, but also the internal structure of relationships between central units, between central units and marketing subsidiaries, and between internal units in the subsidiaries.

The Biosystems project in 1989 is another attempt to create a new internal structure. What have earlier been fairly straightforward adjustments of the internal organizational and marketing system structures, have become reorganization actions under the conditions of inevitably obscured boundaries between internal "organization" and external "environment". The organizational changes that emerge during the last periods are reorganizations in a significantly enlarged and ambiguous "internal" context. Like the emerging technological changes, every company and channel will be subject to a unique set of actor changes. The distilled typology below sums up the major actor changes affecting Pharmacia's emerging biotech channel:

1. Corporate extension and change
2. Extension and change of internal production units
3. Extension and change of marketing subsidiary net
4. Corporate divisionalization
5. Sub-divisionalization and diversification

In this particular case, the internal actor changes became subject to e.g. a successive *extension* and expansion of organizational units (1, 2, 3). There was also a successive *regrouping* of units (4, 5). And they concerned the production units, the central support units and the local marketing subsidiary units:

1. Corporate extension and change

The magnitude and importance of company acquisitions make them important explanations for change in Pharmacia's industrial marketing network. In the long term perspective, these events are repeated, forming a process of successive changes that transform the intra-corporate structure. These intra-corporate changes - in the form of sales/divestments and/or acquisitions - are no simple one-time-events with clear beginnings and ends. The events are points on a continuum where the processes of integrating or disintegrating new organizational units are those that push the system and the actor structure in new directions. For Pharmacia Biotech, the process of extending and changing the intra-corporate network structure of the Pharmacia Group by merging, selling and recombining companies, develops into an important driving force for the changes in the marketing organization for biotech products. It affects Pharmacia Biotech directly (e.g. P-L Biochemicals, 1982), sometimes both directly and indirectly through connections with other divisions (e.g. LKB, 1986), and sometimes only indirectly (e.g. Kabi, resulting in Biosystems, 1990).

The intra-corporate change processes are intensified in the beginning and middle of the 1980s, and are combined with the extension of the foreign marketing net, pushing the internationalization process in a new direction. The extension and expansion of marketing subsidiaries is coupled with the extension of operating, production companies in the USA, United Kingdom, Finland, Sweden, and Norway. It results in the process of integrating the flows of new production units with new and existing marketing units. The processes of changing the intra-corporate network structure are also directly linked to the internal diversification and regrouping that push the structural development in new directions. The increased intensity of concurrent integration and restructuring processes, like in 1986, has some negative effects on the development. The Pharmacia Corporation cannot handle efficiently and effectively the concurrent processes of integrating new organizational units in all the three major divisions for separation products (LKB), diagnostics (LKB, ENI) and pharmaceuticals (Leo, Deltec, Intraocular). The intra-corporate integration processes subsequently result in internal tensions and new reorganizations.

2. Extension and change of internal production organization net

The successive change of Pharmacia Biotech's production organization contributes to the increased organizational complexity in the distribution links with the international marketing organization. The extension process is driven by internal investments in new production units during the first phases of development and by production units added through acquisitions during the latter stages. Thus, the moving internal channel context of Pharmacia Biotech is partly shaped by the longitudinal process of integrating, reorganizing and linking to marketing units, the units producing laboratory, process and molecular biology instruments and separation media. For the separation product division, the international extension and integration of production units in the 1980s is part of the acquisition processes. (e.g. P-L/1982, LKB/Biochrom/1986, with units in Uppsala, Umeå, Milwaukee, Bromma, Cambridge and indirect links to the Wallac unit in Turku.) The 1980s see the emergence of a new internationally dispersed production system.¹⁹

3. Extension and change of marketing subsidiary net

The international expansion of Pharmacia Biotech is embedded in the overall network of change processes. The international "extension" of the marketing organization net proceeds in a moving context of the other organizational changes.²⁰ Although export activities and international connections start within the first year of business back in 1911, it is not until 1948 that the first foreign subsidiary is established when the American R&D and product sales office is founded. The emergence and intensification of Pharmacia's international extension through subsidiaries is concurrent with the birth and emergence of the Sephadex Group. The extension process develops according to the following pattern: USA(1949), Germany(1958), UK(1962), Canada(1965), France(1973), Japan(1973), the Netherlands(1973), Australia(1973), Austria(1973), Belgium(1976), Swizerland(1976), Brazil(1980), Italy(1983), Spain(1985), South Korea(1989). Embedded in the subsidiary extension are the concurrent processes of uncoupling from pharmaceutical/medical agents and licensees, successively integrating pharmaceutical sales and distribution in the wholly owned marketing subsidiaries during the 1960s and 1970s. There is also a successive discontinuation of agent contracts for separation products when wholly owned subsidiaries are established. In addition, there is the reversed process, starting in the 1980s, when the Pharmaceutical Division begins to uncouple from the existing marketing subsidiaries and establish their own marketing organizations. Although the extension process loses some of its intensity from the end of the 1970s, one of the later reported extension events (South

¹⁹The effects on the processes and structures of the marketing organization differ: in the cases where new, complementary production units and resources are integrated - e.g. P-L Biochemicals in USA and Biochrom in UK - integration is handled through coordination with central HQ and distribution units in Uppsala, without any immediate linking with existing production units. The process of integrating LKB's Bromma unit with Pharmacia Biotech's production units in Uppsala and Umeå becomes problematic and in turn affects the ongoing processes of integrating vertically and horizontally both company's marketing units. Three years later, this process changes. The earlier process of decreased internal vertical integration is reversed and production and marketing units are again being closer connected.

²⁰Johanson and Mattsson (1984) use the terms "extension", "integration" and "penetration" to describe internationalization processes of firms in industrial networks. (Johanson, J. and Mattsson, L-G, "Internationalization in Industrial Systems - A Network Approach". Paper presented at Prince Bertil Symposium, Nov.7-9 at the Stockholm School of Economics, Stockholm, 1984)

Korea 1989) is successively followed in time by the start in 1989 of the new era in Pharmacia Biotech's international marketing operations, manifested in the new regionalization processes. As the intensity of international "extension" decreases, the new process of international, inter- and intraregional, coordination and "integration" gains momentum.²¹

4. *Corporate divisionalization*

From the time of the innovation and launching of the first separation media, Sephadex, until the emergence and dissolution of the Biosystems organization in the beginning of the 1990s, Pharmacia's internal organization evolves in a process of diversification and divisionalization. These flows of internal, organizational rearrangements become - directly and indirectly - forces shaping the changes in the internal marketing channel for biotech supplies. The processes of adjusting and creating new internal divisions - mainly reflecting changes within and between the pharmaceutical, the diagnostics and the separation product units - are not immediately reflected in changes in the marketing subsidiary network. While the ongoing divisionalization processes at central level in Uppsala (and elsewhere) successively create an organization divided in three major product divisions, the integrative/disintegrative processes within the local marketing subsidiary organizations do not follow the same clear pattern of disintegration. Time lags, overlapping marketing resources in local organizations for the three divisions, historical traditions in local organizations, and differences in organizational size, contribute to this heterogeneity and discrepancy. There emerges a process of continual organizational readjustments (the biotech actor(s) in italics):

1959: The *Sephadex Group* (integrated with the pharmaceutical business operations)

1967: Pharmaceutical Division and *Separation Product Division*

1974: Pharmaceutical Division, Diagnostics Division and *Separation Product Division*

1984: Health Care (pharmaceuticals and diagnostics) and *Biotechnology Division*

1986: Pharmacia Diagnostics AB, *Biotechnology*, Health Care (pharmaceuticals and hospital products), Pharmacia Ophthalmics AB (ophthalmology)

1990: Procordia Health Care: Kabi Pharmacia, Meda AB (consumer products) and Pharmacia Biosystems AB (= *Pharmacia LKB Biotechnology*, Pharmacia Diagnostics, Kabi Diagnostica, Wallac Oy, Sebia S.A., Pharmacia Deltec and Biosensor)

1992: Kabi Pharmacia (incl. Pharmacia Deltec and Diagnostics), *Pharmacia Biotech* (=Pharmacia LKB Biotechnology, BioProcess and P-L Biochemicals, excl. Wallac, Biosensor, Deltec and Diagnostics) + four additional business groups in the Procordia corporation

1993: *Pharmacia Biotech* (new self contained position in relation to other Pharmacia units)

The birth of the separation product and diagnostic divisions within the context of the pharmaceutical operations during the 60s and early 70s initiates processes of divisionalization and disintegration. After the formal reorganization in 1974 and the start of steady organizational growth in all three areas, the process is stabilized. That is, the division into three separate units is set. The internal readjustments in 1984 signal an important change in the internal divisionalization process; the technological links between the pharmaceutical and diagnostics areas motivate a reorganization in which they are combined into a pharmaceutical&diagnostics group. This process of readjusting the three divisions in relation to

²¹As to the third aspect of internationalization - "penetration" - this process follows closely on the successive extension processes. In USA, for example, the creation of a Sephadex sales unit in the early 1960s is soon followed by a rapid penetration, building up local sales offices in different regions in the country.

each other continues until the dissolution of Biosystems in 1992, when Pharmacia Biotech is de-integrated. The situation in 1992 is similar to the situations in 1967 and in 1984 when the separation product activities are divisionalized and formally disconnected from the other divisions and activities in the corporation. Thus, in the long waves of divisionalization and organizational change, patterns of similar changes reappear.²²

5. Sub-divisionalization and diversification

There is also a successive growth and internal organizational sub-divisionalization. In the separation product division, the process is openly manifested in the event in 1980, when a separate organizational unit for Industrial Applications is established.²³ (The process mirrors the concurrent technical process of up-scaling laboratory instruments for application in industrial production.) The diversification process is accentuated in 1982, when it is linked to acquisition processes and intra-corporate extension. From the acquisition and integration of P-L Biochemicals follows that a third organizational sub-unit - this time an external organizational unit - for molecular biology is linked to the two newly established sub-units for laboratory products and for industrial applications. In 1984, they are officially acknowledged as three separate product divisions within the biotech group. In 1992, as Pharmacia Biotech is established, the three former product units are given the status of separate product companies within the growing Pharmacia Biotech Group. In 1993-1994, this sub-divisionalization process is reversed as the first steps to integrate, and reorganize the three biotech companies - adapting to internal customer changes - and four new product divisions are taken.²⁴

The emergence of a new channel in a given organizational context - here within the context of a multinational pharmaceutical corporation - is inevitably dependent on the way the "new" channel actors become coupled to and decoupled from other units in the existing channel. To these long-term processes of moving channel boundaries, to the processes of internal coupling and uncoupling, Pharmacia Biotech relates its marketing change episodes in the 1990s.

²²Counteracting these attempts to group and re-group the three divisions at central level, are the differences in customer types and customer relations. Changes in local subsidiaries and in exchanges between central and local units do not mirror divisional rearrangements at central level.

²³However, the process already starts before the first Sephadex product is launched in 1959.

²⁴Similar change processes on an intra-divisional level, in the other divisions, have *indirect* effects on the actor structure of Pharmacia Biotech. The emergence of infusion products as an important sub-division in the pharmaceutical activities in the 1980s, affects the creation of the Biosystems group in the 1990s. The fact that Pharmacia Deltec and Pharmacia Biotech are both marketing instruments, motivates the grouping of the two into the same group of organizational units, including also diagnostics units. The differences in customer groups contribute in dissolving the process of integrating sub-units from the pharmaceutical, the diagnostics and the biotech divisions.

CONNECTING AND DISCONNECTING FROM OTHER INTERNAL ACTORS AND ACTIVITIES

Viewing the emergence and change of a new industrial channel as a long-term "spin-off" process, attention is drawn to the horizontal dimensions, to the ways channel actors become coupled to and uncoupled from other actors, activities and resources in the internal context. The spin-offs, the coupling and uncoupling processes, will be part of the moving internal context. Like Pharmacia Biotech, every company and "channel" will follow its own unique patterns of coupling and uncoupling:²⁵

Period 1959-1967 ("Implementation Phase")

The invention, production and launching of the first separation media for laboratory chromatography is the first step in the process of major diversification within Pharmacia. The invention is taken out of the laboratory, R&D context of the cooperative venture between Pharmacia and the Biochemical Institution at Uppsala University, to a business environment with new types of customers. Despite the fact that the new product is born in the context of a pharmaceutical organization and is first marketed and distributed through a "pharmaceutical" based distribution system, the event takes the organization onto a new path of organizational diversification and disintegration. The process is accentuated by the fact that laboratory customers for the separation media are new, needing the support of a new marketing organization. The invention creates intraorganizational tensions which will continue with varying intensity until 1992 when Pharmacia Biotech is separated from the corporation's pharmaceutical and diagnostics operations.

During the first phase, up to the time of organizational change in 1967, the idea of integrating the separation product activities and the Sephadex Group's sales and support units in the existing organization and distribution system for pharmaceuticals is strong and directs the organizational change that follows onto a path of internal integration. Relationships with agents (smaller markets) and licencees dominate. Only a few subsidiaries have been established, but many of the new subsidiaries have a small Sephadex sales group from the start. Despite the fact that a new central export unit has been established in 1957, vertical contacts with agents and licensees are still little developed concerning matters of product and marketing support, information exchange, etc. Education support to agents' sales representatives and support for the launching of clinical tests in local markets are introduced. Central support units handling the contacts with the new subsidiaries and the agents have the overall responsibility to control these units for all major matters, but due to the special characteristics of the Sephadex products, the central Sephadex Group needs to develop parallel support contacts with local Sephadex sales groups.

²⁵For simplicity, we use here the same division of phases (with exception for the last which covers the whole period up to 1995) as for the technological events and organizational changes. In reality, the processes do not follow each other so closely.

The impact of the established pharmaceutical organization and activity structures on the new separation product units and activities are obvious, despite the fact that during the period forces of uncoupling are accentuated; the plans to create an internally controlled, international marketing subsidiary net are implemented. The three new marketing subsidiaries in Germany, United Kingdom and Canada soon integrate the new separation product in the organizations' marketing activities, while working both parallel to and as support to licensees. In the U.S subsidiary, the separation products are integrated in the existing lines of business in the early 60s, and despite the internal interdependence with and links to the pharmaceutical business activities, an important force of internal disintegration in the U.S subsidiary becomes the relocation to Piscataway, New Jersey, where a completely new subsidiary organization is established. A special separation product unit, Pharmacia Fine Chemicals, is established.

An important counterforce affecting the process of integrating separation product operations and groups in the existing pharmaceutical system is the steady increase of new types of separation products with a different technical content complementing Sephadex. Columns and other products are introduced, requiring different types of distribution and marketing compared to the pharmaceuticals and the medical Dextran products.

Period 1967-1974 ("Product Extension Phase")

The next period starts with an internal organizational rearrangement in which the de-integration of the separation product division ("Pharmacia Fine Chemicals") and the pharmaceutical division at headquarters in Uppsala, is set. Several complementary events in 1967 contribute to direct the organizational adjustments into a process of uncoupling from the pharmaceutical units. In Uppsala, the pharmaceutical organization begins to move into new premises. A new production unit for separation instruments is opened in Umeå, which means that uncoupling at HQ level is further accentuated. While internal contacts between the media production and R&D units for separation products in Uppsala, and the instrument production unit in Umeå need to be coordinated, less contacts are now needed to coordinate central units for the production and marketing of separation products with pharmaceutical dextran based production.

The emergence of a new diversified organization is visible also at local level, when the new foreign marketing subsidiaries are established. Separation product units are established from the start (in France, the Netherlands, Japan and Australia). Despite the successive, local integration and take-over of the former agent/licensee activities for pharmaceuticals, the marketing subsidiaries are still based on an internal separation of the two main business activities, but with a common management. Vertically, the newly established "Pharmacia International" unit in Uppsala becomes responsible for handling the contacts and exchanges with remaining agents and licensees abroad. The vertical specialization of HQ-subsiary and HQ-agent/licensee exchanges strengthens the uncoupling of pharmaceutical activities and units from those for separation products. The relatively small size of the new marketing subsidiaries

and the internal control by a common subsidiary management group reporting to central Pharmacia Management in Uppsala, counteract the process of internal uncoupling. A uncoupling factor is the strengthened diversification of customer contacts between local units for separation products and pharmaceuticals. Local separation product units steadily proceed towards new customer groups, and new types of interaction patterns; academic research laboratories, R&D laboratories in pharmaceutical companies, government control laboratories and research laboratories in clinical environments. As the first diagnostic tests are launched in 1970, mainly through the established pharmaceutical marketing organization, the company continues on the path of internal diversification and uncoupling. The first step towards a differentiation into three main business units and three vertical channels are taken during the course of the period.

Period 1974-1982 ("System Integration Phase")

The dominant event in the start of the period is the internal reorganization taking place at the end of 1974/beginning of 1975. The diagnostics activities emerging from the pharmaceutical organization's strategic alliances in diagnostic R&D and production activities grow rapidly and become one of the most successful new business operations after only a few years time. The decision is taken to invest in a new, separate HQ organization for diagnostics R&D, production and central marketing support, resulting in the new Diagnostic Center being opened in 1977. A definite step towards the division into three main, centrally separated, divisions is taken: Pharmacia Fine Chemicals, Pharmacia Pharmaceuticals and Pharmacia Diagnostics. Three separate, vertical relationships between HQ divisions and local units for the three business areas are established, still with a joint local management group. Local organizations differ as to the degree of coupling between the three. For example, the new marketing subsidiary in Switzerland (1976) is established to handle only separation and diagnostics products. The new Belgium-Luxemburg company, N.V. Pharmacia Belga S.A (1976) is mainly handling the local marketing of diagnostic tests. Despite the trend towards separation of the horizontal contacts at HQ and at subsidiary levels between the three groups of business units, the size and the history of each local subsidiary unit contribute to the heterogeneity. The rapid growth and expansion in all three business areas - most apparent in the case of diagnostics - necessitate the internal reorganization and expansion of local marketing subsidiaries in USA (1975), Japan (1975 and 1978), France (1975), Germany (1976), Canada (1976), Australia (1977), Finland (1977), Norway (1977), Brasil (newly subsidiary established in 1978), Great Britain (1978) and Sweden (1979). Despite strong internal, organizational links between the three groups at subsidiary level, local organizations begin to separate and specialize its units for separation products, pharmaceuticals and diagnostics. In most subsidiaries, a central, common subsidiary management group reports to HQ in Uppsala. Rapid growth also stabilizes the organizational de-integration at HQ level, as new separate and specialized R&D and production facilities are invested in by both Pharmacia Fine Chemicals and Pharmacia Pharmaceuticals.

Despite the fact that Pharmacia has now definitely taken the path of organizational de-integration of the three major, technologically interdependent divisions, there are technological and organizational counterforces. The idea of a strong technological interdependence and synergies ("biotechnology") between the three groups of activities - mainly in R&D activities - is institutionalized in the company.

Period 1982-1986 ("Diversification Phase")

The early 1980s see the start of a period of radical external expansion of the whole Pharmacia Corporation. For the separation product division the year 1982 is the start of this external expansion. The intensified processes of the acquisitions, mergers and strategic alliances from 1982, direct all three divisions onto the path of global, intradivisional expansion. A new, complex internal marketing network structure with a geographically dispersed net of production units emerges. The acquisition of P-L Biochemicals Inc. by the separation product division is one of the first major steps.²⁶ Acquisitions by the diagnostics division (Vespa Inc., USA) and the pharmaceutical division (Nu Tech Medical Systems, USA and Medical Workshop, Holland) signal the start of an international expansion also in these areas. Despite the stable, institutionalized idea about "biotechnology", in a wide sense, as a common denominator and integrating factor for the three divisions, the corporation is now on the path of internal de-integration, where each central organizational division in Uppsala becomes coupled to a network of acquired companies. In reorganizations towards the end of the period, the pharmaceutical and the diagnostics companies are regrouped, forming a joint holding company for the two operations.

At marketing subsidiary level, the chosen path of integrating all three business areas under the management of each local marketing subsidiary comes to a partial stop in 1981-82, much due to the success of two new products within the pharmaceutical operations. Debrisan, a wound-cleaning product, is introduced through local marketing cooperation agreements in USA, France and Belgium, among other countries. The major success of the ophthalmology product Healon causes the Pharmaceutical Division to reverse the process of integration. In Belgium, the Netherlands and in Austria, where the corporation already has subsidiaries, the Pharmaceutical Division establishes its own sales organizations in 1981-82. This is due to the success of Healon, needing new forms of marketing resources in order to handle contacts with a completely new type of customers, i.e. eye surgery clinics. In addition, the Pharmaceutical Division needs to strengthen the marketing resources in all its main areas, due to rapid expansion. Thus, contributing to the local uncoupling process of the pharmaceutical units from the diagnostics and separation product units is the growth of the Pharmaceutical Division, increasing the number of local, external marketing cooperation agreements in 1981-82 (a major event in 1982 is Pharmacia's agreement with KabiVitrum, taking over the responsibility for the marketing of all KabiVitrum's products in USA and Canada).²⁷

²⁶The acquisition of P-L Biochemicals in USA is important also insofar that it is a radical step towards a more open diversification of the *internal* activities of Pharmacia Fine Chemicals. Thus, 1982 sees the birth of three sub-divisions within the separation product division for laboratory instruments, for industrial processes and for molecular biology media. The division is manifested in a reorganization in 1984 and remains a stable sub-divisional structure during the rest of the 80s.

²⁷The internal organizational changes - the start of the local de-integration of the pharmaceutical units - are coupled to a technological shift in the pharmaceutical division from traditional synthetic chemicals toward

For the separation product division, the step towards an internal division into three distinct business units is taken, with new industrial customers linked to the new industry scale product group. It accentuates the increasing internal complexity and the horizontal uncoupling at HQ level, later also locally. Events in the pharmaceutical division speed up the internal horizontal uncoupling process.

Period 1986-1989 ("Merger and Consolidation Phase")

The major events of 1986 create a radically new structure, and set in motion long-term processes of merger and integration of units at all levels in the channel. They are the start of merger processes whose results are new patterns of couplings between biotech, diagnostics and pharmaceutical units. The merger with LKB leads to a chain of integrating and de-integrating actions, reorganizations and rationalizations. Counteracting the earlier accentuated process of uncoupling of the separation product, diagnostics and pharmaceutical divisions, at HQ and at local subsidiary levels, is the fact that LKB is involved in both diagnostics and in separation product activities. There are operations in Sweden and in two foreign daughter companies, Wallac and Biochrom. The acquisition of LKB results in a new intraorganizational structure where three new production units (two foreign), three administrative office units and sixteen foreign marketing subsidiaries related to both diagnostics and biotech are to be incorporated with Pharmacia's separation product and diagnostic divisions. A negative effect of the LKB acquisition is the vertical uncoupling between HQ units and subsidiaries.

Period 1989-1993 ("Reorganization Phase")

The integration of Pharmacia in the Procordia corporation, including the merger with Kabi, affects Pharmacia Biotech indirectly through the changes that affect the Diagnostics Division and some of the pharmaceutical units. The creation of the Biosystems Group reverses the process of internal uncoupling of the diagnostics, pharmaceutical (Pharmacia Deltec) and the biotech units, both centrally and locally. The change projects initiated in 1989-90 start processes that alter the internal vertical relationships between HQ, local marketing units (including new intermediary, regional offices) and customers, and also the horizontal connections at both central and local levels. When Biosystems is dissolved in the beginning of 1992, the biotechnology group takes a radical step towards uncoupling from the diagnostics and the pharmaceutical units; centrally, regionally and locally. In 1993, there are still some remaining links between Pharmacia Biotech and other Pharmacia units, but the new biotech company seems to be firmly on the path of internal uncoupling and increased independence.

To sum up, an industrial marketing channel does not emerge in a vacuum. It emerges within and from an organizational network context. Technologies and activity structures of the production system linking production, distribution and use, emerge and change within this network context. The actors and network controlling these activities also emerge within a context. Actors are continually reorganized and redefined. In these

processes, actors are continually coupled to and uncoupled from other "internal" and "external" actors, depending on definition. Taken together, these are important processes forming the moving internal context in which marketing change episodes emerge and develop.

MOVING CHANNEL BOUNDARIES, CONTRADICTIONS AND AMBIGUITIES

Is it possible to summarize the multitude of changes (driven ultimately by the actions of humans) that form the moving internal marketing context, the industrial marketing organization, in which marketing change episodes are embedded? Judging from the story of Pharmacia Biotech, we need to repeat that the organizational world of an industrial manufacturer and its marketing change agents contains tensions, contradictions, ambiguities and moving boundaries.

System boundaries are changing, both incrementally and in major steps. Organizations have different shapes and boundaries, depending upon which components are observed and who is observing.²⁸ Organization and marketing system boundary problems can be viewed as interlocked behaviours and interstructured activities over which actors/systems have discretion to initiate, maintain or end behaviours, e.g. marketing changes.²⁹

Driving forces behind the successive modifications of initial intentions, of change contents and processes, and of temporal profiles in Pharmacia Biotech's marketing change episodes 1989-1992 are coupled to the processes whereby the internal system boundaries and definitions change; to the contradictions and perceived ambiguities that they create, and to the behaviour of coping with this ambiguity during the courses of the episodes. And coping with it means not only coping with the present, but with the long-term, slow moving processes of structural change in technologies, activities, internal actor structures, and with the processes whereby the actors are connected to and disconnected from other (internal-external) actors over time.

The social order produced in the process of social construction contains contradictions, ruptures, inconsistencies, and incompatibilities in the fabric of social life.³⁰ In Pharmacia, several breaks with the present order are due to contradictions. Changes in

²⁸Starbuck, W., "Organizations and Their Environments", in: Dunnette, M. D. (ed.), *Handbook of Industrial and Organizational Psychology*, Rand McNally, Chicago, 1976

²⁹Weick, K.E., *The Social Psychology of Organizing*, New York: Random House, 1969, Pfeffer, J. and Salancik, G., *The External Control of Organizations*, Harper & Row, New York, 1978

³⁰Benson, K.J., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, pp. 1-21, March 1977

Pharmacia Biotech are in some aspects born from contradictions within the social, organizational order, between the organizational and technological changes, and between the organizational and technological orders, and the institutionalized *ideas* about the organization.³¹ Tensions, contradictions, and ambiguities as driving forces for change, grow out of this situation:

The Biosystems venture 1989-90 brings about contradictions in which different processes become "out of phase" with one another, such that the development of one process tends to impede the development of other processes. Within the internal biotech marketing network, the process of horizontal uncoupling of interactions between the three main biotech groups (laboratory, process and molecular biology units) coupled with attempts to strengthen the vertical interactions and exchange relationships within the channels for each of the three separately, contrast sharply with the new Biosystems idea and its new "channel" boundaries. Internal network contradictions are created by the fact that interactions between subsidiaries and customers differ sharply between the Diagnostics and Pharmaceutical groups on one side, and the Biotechnology group on the other.

Contradictions between the internal interaction structure and the resources used already exist before the decision to create Biosystems. The heterogeneity among the subsidiaries, their lack of resources, etc., create a situation where after sales resources and the performance of after sales activities overlap between the diagnostics and biotechnology operations. In many subsidiaries the long-term process of separating resources and activities for diagnostics and biotechnology lags behind the organizational changes. The resource requirements for handling the interactions with customers differ in each of the three Pharmacia Divisions and also in each of the three Biotech product groups. The process of ongoing specialization contrasts with the new organizational idea of Biosystems, and in some respects also with the internal network structure and ongoing change processes. The resource requirements for one interaction process are, if not inherently antithetical, at least partly contradictory to the new formal and operational, organizational structure being implemented. Some of these inherent tensions and contradictions eventually lead to the dismantling of the Biosystems venture.

Contradictions and tensions become central features of the long-term development and redirection of a company's marketing system. They affect organizational actions in that it becomes impossible in some change episodes to accomplish intended goals in a "rational" manner. Elements of "moving boundaries" in Pharmacia Biotech are one of the underlying causes of internal tensions, contradictions, perceived ambiguity, and subsequent change actions. The boundary between "internal" and "external" contexts changes. While Pharmacia as a whole is enlarged, each product division has to cope with

³¹An important source of contradictions and boundary ambiguity has to do with the fact that change actors are embedded and acting in a situation where time lags separate adaptations between changes in ideas about the formal organizational structure, changes in the internal social interaction structure, and changes in the technological, activity and resource structure.

the fact that other divisions are in different senses both internal and external. Building on the process descriptions above, we can sum up some of the long-term processes that created contradictions and moving boundaries, with the following concepts:

1. Circularity
2. Alternation
3. Extension
4. Divestment
5. Differentiation

1. Circularity

In the 1960s, during the international extension of the marketing subsidiary net, before the integration of the pharmaceutical distribution activities, and before the birth and integration of the diagnostics activities, the separation product activities are performed by an internal marketing channel with a fairly high degree of independence. After a number of internal reorganizations during the 1970s and 1980s, and after the decision to dissolve the Biosystems project, the uncoupling from diagnostics and pharmaceuticals (Procordia Health Care) gains momentum, and the biotechnology marketing system is back into a situation similar to the that of the 1960s. Despite the fact that it is now a corporation, a biotech supplier, and quite a different company, the vertical marketing system, in 1992 is in a uncoupled situation similar to the one during the build-up phase in the 1960s.

Hence, with this particular perspective, the moving internal context making up the emerging biotech channel seem to contain cyclical elements. The state of the Sephadex Group's marketing system reappears in the 1990's, not as a replica, but in a form which has obvious similarities with the situation thirty years earlier.³² Like retail systems can be viewed as going through cyclical patterns of change,³³ it might also be anticipated that emerging marketing channels can have elements of repetition. Following a marketing channel over decades, we might find elements of *recurrence*.³⁴ In this case, these elements concern only the way the organizational units of a specific marketing channel over time are coupled to other units in the organizational context, and how this recurrence becomes a part of the processes of creating moving boundaries.

2. Alternation

Comparing with the coupling and uncoupling sequences of the diagnostics division, a similar form of circularity can be observed: the diagnostics division starts and ends as a unit connected to the pharmaceutical organization. However, as to this division, the *alternation* between being connected to

³²Although only one such cycle is acknowledged here, it raises the question: Do networks of organizations over longer time periods also have repetitive, cyclical characteristics? The internal marketing organization does not return to an "initial state", but certain characteristics do seem to reappear.

³³Hollander, S.C., "The Wheel of Retailing", *Journal of Retailing*, Vol. 24, pp. 37-48, July 1960

³⁴This can be related to the cyclical views of historical processes and change in social systems described by Sorokin. (In: Sorokin, P., *Social and Cultural Dynamics*, New York: American Book Company, 1937). See also Sztompka's (1993) description of cyclical theories (In: Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, chapter 10).

the biotechnology division and the pharmaceutical division is more apparent. Technological interdependencies and similarities with both other divisions, and the similarities with both divisions as regards customer relationships contribute to this dynamic alternation of integration with the pharmaceutical and the biotechnology divisions (diagnostics and pharmaceutical divisions are approaching for some products the same broad categories of customers, clinical laboratories, and the same applies to the diagnostics and the biotechnology divisions).

Alderson used the terms "monostasy" and "systasy" to describe the paradox of human activities in marketing systems, denoting the fact that individuals and companies desire both the state of being bound together with others in an effective operating system ("systasy"), and a desire to carve out a unique position, to maintain *some degree* of independence from interference from outside ("monostasy").³⁵ Connecting the idea of systasy to a resource dependency perspective,³⁶ the alternation of a particular marketing organization, over time connecting differently to different other marketing organizations, can partly be explained by changes in the ways different marketing organization's resources are combined and used. Over time, a marketing organization, can and might need to change the way its resources are combined with those of others, thus alternating the links to other marketing organizations.

3. Extension

Many of the most apparent tensions in Pharmacia Biotech's marketing system emerge due to expansion and growth of the company, with more companies incorporated in the biotech group. The moving system boundaries appear also in the vertical dimension. In the beginning of the 90s, the introduction of direct distribution to customers, the new focus on efficiency in purchasing and materials management with a focused cooperation with fewer suppliers, and the introduction of the so called "key account management system" which directs attention to fewer key customers for the biotechnology supplies, contribute to "extend" the vertically integrated marketing channel. Some suppliers become more closely coupled to Pharmacia Biotech's production and distribution units in Uppsala, Umeå and elsewhere, and certain key customers become more strongly connected to the local sales organizations, or sub-regions (Europe). Despite the fact that long-term relationships with both suppliers and with customers exist before these changes are initiated, it is the first time that marketing change episodes are directly aimed at linking suppliers and certain customers closer to the biotech channel. This in turn is possible because of reduced contacts with other suppliers and non-key account customers. This major change of strategy is coupled with internal ambiguities and uncertainties in the first stages.

³⁵Alderson, W., *Marketing Behaviour and Executive Action*, Homewood, Ill.:Richard D. Irwin, 1957, pp. 325-327

³⁶Pfeffer, J. and Salancik, G., *The External Control of Organizations*, New York: Harper & Row, 1978

The boundaries of marketing channels are moving due to processes of expansion. The network of organizational units changes as a result of external units being closer tied to the core of units making up the marketing channel. No matter how these units are being tied to the focal marketing channel units (through acquisitions, through tighter bonds with suppliers to the production organization, to some chosen key account customers) they set in motion processes whereby the boundaries change and internal contact patterns have to be adapted. Growth through acquisitions, for example (internalizing former external resources through hierarchy), becomes in this perspective only another way of starting reorganization processes in the marketing channel, in which new interaction patterns have to be organized.³⁷ Processes of both coupling tighter and uncoupling actors are set in motion. The boundaries move, creating new patterns of contradictions and new ambiguities for the actors in this context.

4. Divestment

Another type of system boundary ambiguity due to adaptation time lags, is observed in the treatment of the former LKB owned companies Wallac and Biochrom. The process of integrating Wallac into the new Pharmacia corporation and later in the Procordia group is reversed in the 1990s as it is decided that Wallac is to be sold and the involvement in immunodiagnostic systems terminated. Within some of the subsidiaries there has developed a resource overlap, which means that e.g. after sales activities for Wallac's diagnostics instruments and for the biotechnology instruments are sometimes handled by the same personnel. The successive organizational uncoupling of Wallac, first centrally (it is first placed within a new specialized intra-corporate group named Procordia Invest) later locally and lastly in the resource and activity structures locally, is an uncoupling process in which Wallac during the transition period is both connected and disconnected from the Procordia group. For Biochrom, the process is almost the reverse; starting with open divestment plans and efforts, the process is reversed and Biochrom is integrated in Pharmacia Biotech's laboratory supply operations, Pharmacia LKB Biotechnology.

Open processes of uncoupling actors, e.g. through divestments, start reorganization processes that alter the boundaries of marketing channels. The contradictions and ambiguities that can emerge in the network processes that are set in motion can, as in the case of extension, be caused by the various *lead and lag effects* of the change processes.³⁸ A divestment need not result in an immediate decoupling of actors, activities or resources from the focal marketing organization. Various links can remain (sharing the same marketing resources for an extended period) while decoupling (reducing

³⁷Aldrich (1979) describes *growth* as one of three major forces which can explain why single organizations can be *transformed*, that is, why there can be major changes in goals, technologies and activity systems. (In: Aldrich, H. E., *Organizations and Environments*, Englewood Cliffs: Prentice-Hall, 1979, pp. 204-207)

³⁸Hernes, G., "Structural Change in Social Processes", *American Journal of Sociology*, Vol. 82, pp. 513-545 November 1976

coordination and the interactions between units) from the focal marketing organization. Judging from the case, boundary ambiguities can emerge in this situation.

5. Differentiation

Sequences of coupling and uncoupling are also related to the intra-divisional level. As the internal biotech units grow and marketing activities are differentiated, processes of internal uncoupling are initiated. For example, the birth of the BioProcess company for industrial supplies is a long-term, intra-divisional uncoupling process, taking place in the context of the inter-divisional changes. Despite the strong intraorganizational couplings that still exist between BioProcess and Pharmacia LKB Biotechnology (the laboratory product division) in the early 90s, there are indications that the start of an increased specialization will be linked to a more independent organizational position, centrally and locally, involving also Pharmacia P-L Biochemicals (the division for fine chemicals). In the transition period, the formal boundary emerging between the three biotech units, is coupled to lags in the internal specialization of resources and activities. After 1993, the specialization process is reversed, as it is decided to adapt to key customers' operations and the emerging account overlaps. The organizational processes are reversed, moving towards an increased coordination of the laboratory and process scale purification activities and units.

Internal boundaries between units handling different products, systems and customers emerge when companies grow and differentiate. What starts as a new product group can develop into a division and new company. The emerging differentiation can create contradictions, tensions and moving marketing channel boundaries. The new actors need to specialize marketing resources, while concurrently combining some of the resources with the other units. Resource overlaps can change over time. Tensions can appear when (elements of) *multiple channels* emerge,³⁹ e.g. where one might require direct contacts between the central sales organization while one reaches the users through an intermediate organization. The process in which the internal differentiation moves towards integration (a "single channel") or separation ("multiple channels") can shift; ongoing differentiation lead to situations where the emerging channel(s) have elements of both.

In all processes, time lags separate changes in formal organizational structure, changes in the internal interaction patterns, and changes in activities and resources controlled by the new emerging internal units and networks. In the marketing change episodes, these "imbalances" due to time lags in adaptations, create moving boundaries and ambiguities that in turn become the origins of adaptations of intentions, contents and processes in ongoing marketing change episodes.

³⁹For a discussion on the problem of multiple channels see e.g. Alderson, W., *Marketing Behaviour and Executive Action*, Homewood, Ill.:Richard D. Irwin, 1957, pp. 331-332

MOVING BOUNDARIES REFLECTING INTERCONTEXTUAL CHANGES

The dynamics of market organization rest on competitive attempts at co-ordination, according to Alderson.⁴⁰ The emergence, growth and change of Pharmacia Biotech's marketing organization describe in some parts a conformation to this paradox. The continuous, formal, organizational readjustments and the changing internal structures over the period 1959-1995 are in one perspective a story of how to cope with the need among organizational divisions and units to "stand alone" and the need to be bound, or grouped, together, in order to exploit complementarities in various dimensions, e.g. in the marketing operations. The history of Pharmacia Biotech is the story of the difficulties to handle this paradox, both organizationally and technologically; in the processes of genesis, radical growth, and maturity as a self contained company. The actor and marketing organization boundaries are continuously reshaped through dialectical sequences of internal coupling and uncoupling.

Concurrently, individuals are performing marketing changes in this context of moving boundaries, trying to adapt and fit in change episodes into the historical sequences of internal, organizational coupling and uncoupling. From the point-of-view of the single marketing change episode, the boundary ambiguity problem does not become a problem in a static sense. Instead, the situation requires marketing change agents to cope with contradictions and their own perceived boundary ambiguity as a characteristic of the moving internal context. (At the end of the next chapter, we relate the episodes to the discussion of the moving context.)

From the experience of how Pharmacia Biotech is created, we can make the assumption that a stable, taken-for-granted distinction of an autonomous, vertical marketing channel for industrial products is only one of several boundaries for inquiry.⁴¹ Defining an industrial manufacturer's marketing channel in terms of an *a priori* defined, static and enduring, vertical marketing system consisting of a stable actor constellation renders it difficult to explain important aspects of its development. The boundary between internal and external contexts depends on whose perspective is chosen, but even for the same viewer the boundary between "internal" and "external" contexts is ambiguous and changing.⁴²

⁴⁰Alderson, W., *Marketing Behaviour and Executive Action*, Homewood, Ill.:Richard D. Irwin, 1957, p.327

⁴¹Gattorna (1978) stated that the channel and distribution literature "tends to oversimplify what is in fact an intrinsically complex network". The picture depicted of Pharmacia Biotech's emerging marketing channel seems to support the idea of the (industrial) marketing channel as an intrinsically complex network. (In: Gattorna, J., "Channels of Distribution Conceptualizations: A State-of-the-Art Review", *European Journal of Marketing*, Vol 12 No. 8, 1978, pp. 471-512)

⁴²Organizational abstractions of vertical marketing channels - which correspond to conventional administrative views and function as ideologies, normative models and goals that set arbitrary but conventional

Extending the systemic, network perspective, Pharmacia Biotech's marketing change episodes of the 1990s become embedded in a larger whole where Pharmacia is the node connecting three separate, but interconnected, operations for pharmaceuticals, diagnostics and biotech supplies. The contradictions and intercontextual tensions between the three systems affect the development of the strategic change processes. The moving internal context, with moving boundaries, reflect tensions resulting from changes in the more wider context. The position changes of the Pharmacia Corporation - the interconnected position changes of its three divisions - are parts of these movements. This is the focus of the next chapter.

boundaries between phenomena - need to be distrusted as the only or most relevant boundary for enquiry. A conventional separation between "organization", "marketing actor", "channel" and "environment" need not be distrusted for its own sake, but because the moving boundaries make up the ambiguous context in which important marketing change episodes are placed. Consequently, a better understanding of this context, could lead to a better understanding of marketing actions and the way marketing change agents interact with and abstract their own spheres for "rational" marketing change. (See also Benson's discussion on organizational dialectics: Benson, K.J., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, pp. 1-21, March 1977)

7 Change and Intercontextual Contradictions

The moving internal context and marketing change episodes are part of a larger "whole", the moving industrial network. What is the nature of this larger context, and how are the movements related to "internal" channel changes and the contents and processes of marketing change episodes? The chapter continues the discussion on the moving context, relating it to an industrial actor's position changes.¹

The moving context in which industrial channels and marketing change episodes are placed can be viewed as a network with basically arbitrary boundaries. The different "channels" and production systems within the Pharmacia Corporation, the organizational units interconnecting resources and activities for biotech, for diagnostics, for pharmaceuticals, and for consumer products overlap, and the technological interdependencies between the three former, major divisions change over time. The configurations of interconnectedness change over time. The corporation and its marketing channels are embedded in a larger whole, making it member of more than one network. "Pharmacia" is a node within which several industrial networks and production systems are interconnected.

Externally oriented changes (e.g. acquisitions), especially from the 1980s and onwards, come to define some of the major changes in Pharmacia Biotech's marketing system.² The company's external network connections change over time like its different roles and positions in biotechnology. Changes in Pharmacia's and in Pharmacia Biotech's external network relations become part of the marketing change agents' enacted contexts. Contradictions between the changes in the internal "parts" and the changes in the "wholes" are reflected in the change episodes. The contents and the processes of the

¹This means that we here continue to take the actor's (here: Pharmacia's) point of view when describing the position changes. We will not give accounts of e.g. other biotech suppliers' (or other connected actors') position changes.

²See Appendix 1 in the separate case book.

marketing change episodes are dependent on and emerge from the fact that intercontextual patterns create contradictions between relationships in the networks, and between production systems sharing the same resources and activities. Tensions between new structural constraints (and opportunities) and the ongoing marketing change actions emerge. The tensions and contradictions that result are not static; attentions and actions are over time directed at different tensions within the moving context.

The marketing change episodes proceed in the context of an emerging biotech company, born within the larger context of a pharmaceutical company developing into a multinational (health care) corporation. Both the Pharmacia Corporation's and the biotech company's positions change over time, embedding the marketing and distribution change episodes (figure 7.1.).³

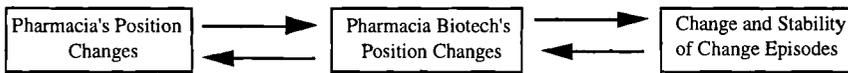


Figure 7.1. Marketing change episodes in the context of a company's and a corporation's position changes

The corporation's changing positions can be viewed from its constituent divisions' position changes over time. The emergence of the corporation is reflected in its four divisions' changing relationships with customers, R&D partners, suppliers, intermediaries, and other manufacturers. In addition, the internal relationships between the four actors also change over time.

INTERDEPENDENCIES BETWEEN PHARMACIA'S AND PHARMACIA BIOTECH'S CHANGING POSITIONS

Pharmacia Biotech becomes part of the whole Pharmacia Corporation's successive position changes. The corporation's changes provide both the opportunities and constraints for Pharmacia Biotech to alter its positions. The emergence of the corporation is reflected in the Pharmaceutical, Diagnostics, Consumer Products and the Separation Products/Biotech Divisions' changing relationships with customers, R&D partners, suppliers, intermediaries, other manufacturers, and in relationships between the internal

³To repeat, a position change can be defined as a change in the relationships with other actors in the network, in the identity of counterparts, in strengths of relationships, in the role(s) of an actor and in the importance of the actor in relation to other actors. See Johanson, J. and Mattsson, L-G., "Network positions and strategic action - an analytical framework", (in: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 205-217, 1992), and Henders, B., *Positions in Industrial Networks - Marketing Newsprint in the UK*, Doctoral Thesis, Department of Business Studies, Uppsala, University, Uppsala, 1992.

divisions/companies. Each new, emerging division/company is connected to its own changing set of counterparts. Pairs or sets of internal divisions are also linked to the same counterparts: e.g. the Diagnostics and Biotech Divisions both become connected to the same manufacturer, LKB. From 1980, and often due to acquisitions and alliances, Pharmacia come to interconnect four nets of organizations:

The Pharmaceutical Division

The Division's external expansion through acquisitions or cooperative, R&D and marketing ventures with other manufacturers takes off in the 1980s. In the early 1980s, counterparts basically active in the established Pharmacia lines of business are approached: in ophthalmology (Medical Workshop, Holland 1982, Biomatrix Inc., USA 1985), in wound cleaning (Schering AG, Belgium 1980, Johnson&Johnson, USA 1981, Green Cross Corporation, Japan 1981, Goedecke AG, Germany 1982), and in infusion therapy (Gambro, Sweden 1981, Knut Spaerens Laboratorier A/S, Norway 1981, Nu Tech Medical Systems, USA 1982, Gislaved Gummifabrik AB, Sweden 1982, IMRÉ, USA 1983, Biotechnology General Corp., USA 1984, ACO, Sweden 1984). The trend continues during the rapid external expansion from 1986 and onwards, but is now complemented with alliances and acquisitions of companies in, for Pharmacia, *non-traditional areas*: e.g. AB Leo in Sweden 1986, active in areas of organic chemistry, pharmacology and pharmacy (e.g. oncology and smoke cessation), and the Kabi Group in 1989-90. With these external events come also new types of buyers in the pharmaceutical-health care sector and new types of suppliers connected to the production units. As regards contacts with intermediaries, the Division continues throughout the 1980s to sign distribution agreements in all business areas with independent sales agents and with licensees, differentiating it from the Biotech and Diagnostics Divisions.

The Consumer Products Division

The Division's activities in non-pharmaceutical areas are successively being discontinued/divested during the 1980s. In 1989 only one of three separate sales companies remains outside the three major product divisions, Meda. The separate sales company for the Nordic countries markets foreign manufacturers' pharmaceutical, diagnostic, biotech and medical equipment products. As sales agent in the Nordic home market for other manufacturers, the corporation restricts its contacts to foreign manufacturers within its own, traditional core business areas.

The Diagnostics Division

In comparison to its sister divisions, the Diagnostics Division from 1980 engages in a backward vertical integration, securing the contacts with suppliers of raw materials, allergenes, for the allergy diagnostics production; e.g. with local suppliers to the Pharmacia owned diagnostics company BHP Inc. in USA 1980 (later sold), Vespa Inc., USA 1982, and Diephuis Beheer B.V., Holland 1984. Throughout the first half of the 1980s, the Division signs a number of licensing, marketing, production and R&D agreements with companies in the allergy field. A break comes in 1986 with the acquisitions of the US company ENI and Swedish LKB, and in the 1989 merger with Kabi, including Kabi Diagnostica, linking the division to areas outside allergy diagnostics: immunodiagnostics,

clinical test instruments, and blood virus diagnosis. Despite this, the relations with clinical laboratories and allergy departments and doctors remain the dominating customer contacts. The relations with clinical test laboratories to support market introductions and a few sales agreements with foreign sales agents complement the heavy reliance on sales through the Pharmacia subsidiaries.

The Biotech Division

The Division's two major external actions during the 1980s - the acquisitions of P-L Biochemicals and LKB Produkter - basically stabilize the already emerging orientation towards three business areas: laboratory, process separation and molecular biology supplies. Connections to other areas - e.g. via relations with LKB companies Wallac and Sebia S.A. - are later divested. The process of reducing the relations with independent sales agents continues - the Division relies heavily on the relations with customers via the wholly owned Pharmacia subsidiaries. The relations with both key customers and key suppliers begin to change radically as the Division enters the 1990s. New supplier and customer programs redirect the attention to a number of key actors both backwards and forwards in the channel. The relations with industrial, pharmaceutical customers are focused. The original separation product units of the Division develop more open supplier-buyer relations with R&D actors e.g in the academic world, from a situation in the 1960s and 1970s when the units were part of intense R&D relations between Pharmacia and the University networks all over the world (dominated by local University networks in USA, Japan and Europe, e.g. Sweden). However, in the 1980s, the Division's new molecular biology units develop new relations to the University and private R&D actors in the growing biotechnology network.

During the 1980s, there is also a shift in the *internal relations* between the Divisions. The former R&D contacts between the Pharmaceutical, Diagnostics and Biotech Divisions, are successively being dominated by supplier-buyer relationships in the Biotech-Diagnostics relation and in the Biotech-Pharmaceutical relation. Other biotech suppliers begin to compete with the Biotech Division for sales contracts with the other two Pharmacia Divisions, making them only marginal customers to the Biotech Division.⁴

The Pharmacia Corporation's changing role and importance in its industrial context becomes a reflection of the roles and importance of the four main divisions of the emerging corporation. The roles and the importance of the corporation change, as a consequence of the fact that each division's role and importance in the network change and that the interdependencies between the divisions' roles change over time. The Pharmacia Corporation's roles and importance as *change initiator* in the network develops over time:

⁴Not among the 10-20% of customers purchasing 80-90% of total sales.

Pharmacia's changing resource bases for initiating change

One of the trademarks of the relatively small pharmaceutical company between the 1940s - when the path-breaking Salazopyrin products (for treatment of e.g. rheumatism) are launched on a larger scale - and the early 1980s when e.g. the eye surgery product Healon is introduced, has been the company's reliance on *technological uniqueness*. All three major Divisions have been able to be active initiators of change in niches of different production systems. Sephadex and gel filtration change, in some aspects radically, the purification and separation routines of the world's biochemists, followed by improved process purification methods and products for pharmaceutical production of insulin in the 1970s. The introduction of the new allergy diagnostics products in the 1970s, makes it possible to introduce changes in niches of the production systems connected to clinical, routine testing. When entering the 1980s, the strengthening of the corporation's *financial base*, through a rapid sales increase with still fairly high margins on many products, and the introduction onto the stock exchange improve the resource base and the platform for external expansion. Changes are now redirected towards the control of competing and complementary manufacturers' production systems (acquisitions, joint ventures, mergers, alliances) rather than sole reliance on technological and product uniqueness. During the late 80s and early 90s, the resource base is changed; the former Pharmacia Corporation's technological, market, marketing and financial resource bases are merged with those of the Procordia conglomerate, including the Kabi organizations. The resource base of the new joint Kabi-Pharmacia pharmaceutical organization increases rapidly, making Pharmacia (the common name later adopted) one of the larger pharmaceutical corporations in Europe. The acquisition of Italian Erbamont (Fice) strengthens the new corporation's importance and platform for change in the global pharmaceutical network; company size, the radically increased number of production roles through diversification, and a new, more global presence. Concurrently, the former Biotech Division of Pharmacia transforms into a separate self contained company, complementing its former technological uniqueness and strong financial situation with a radical shift towards using established *market investments* (key accounts) and *marketing and distribution resources* as new bases for changing its control over external actors' activities and strengthening its positions.

Pharmacia's external changes and altering internal interdependencies as basis for initiating change

Pharmacia's changing importance and roles in the industrial network, is initially strongly connected to the stable, *internal*, technological interdependencies between the three major divisions. The importance of the Pharmaceutical Division, the Separation Products Division and the Diagnostics Division as change initiators in their respective *external* network contexts and connected production systems during the 1960s and 70s is partly founded on the stable *internal* R&D and production interdependencies between the three Divisions. The common denominator is the interconnected dextran based R&D activities, giving each division the basis for changing external activities through the introduction of technologically unique products and methods. The 1980s see an important shift in this respect. Each of the three divisions extends the direct control of external companies' resources,

enlarging (mainly through acquisitions and mergers) the "internal" production system contexts. Despite the fact that the *idea* of the strong internal technological interdependencies ("synergism") and basis for strategic changes remain within the Corporation, the factual resource base for the three respective Divisions are separated. (Towards the end of the 1980s, the Biotech Divisions' importance, roles and opportunities to implement change in external production systems change towards *its own internal* triadic relationship: i.e. that of Pharmacia LKB Biotechnology, Pharmacia BioProcess and Pharmacia P-L Biochemicals within the Biotechnology Group.) The former R&D and production interdependencies between the three major Divisions are slowly changing into becoming regular buyer-seller links.

Pharmacia's changing corporate structure and hierarchical levels for introducing change

As the corporation during the 1980s extends the control over other organizations, extending the intra-corporate networks, and later becomes part of the Procordia conglomerate during the 1990s, the basis for initiating externally oriented changes is altered. New "internal" hierarchical levels emerge, and internal interdependencies for introducing external changes are altered. Relating to the last section, the triadic resource base of the three units of the Biotechnology Group and the Group's increasing interdependence to initiate external changes, are partly restricted as a joint Procordia management group takes over the overall control and starts to regroup the internal organizations. The emergence and dismantling of the Biosystems Group is one open effect which through different hierarchical levels and organizational units come to affect the opportunities for e.g. the Biotechnology units to change their control over activities in the global biotechnology network.

Pharmacia's changing role composition

Through the rapidly increasing external control of other actors' resources and production system activities during the 1980s, the corporation becomes positioned in a number of different production systems. The set of roles increases rapidly. Towards the end of the 1980s, this role multiplexity increases with the merger of the Pharmacia and Kabi corporations. The new consolidated pharmaceutical giant becomes positioned in a large number of new production systems and the diversification and increasing role multiplexity continues in the merger with the Italin pharmaceutical giant Erbamont. Later, the former Diagnostics Division becomes integrated within this sphere, while reducing the role multiplexity by exiting from production systems connected to blood- and immunodiagnostics. Concurrently, the former Biotech Division also goes in the other direction, slightly reducing its role multiplexity; e.g. the former positions in systems for clinical electrophoresis and clinical test equipments are given up (Wallac and Sebia are sold). The ambiguity concerning what common internal resource base to build the external positioning process on is slightly reduced for the new biotech company in the 1990s. Through the existing customers' changing positions in biotechnology the role ambiguity increases in another part of the context (concerning the company's future role(s) in molecular diagnostics).

A number of factors contribute to alter Pharmacia's position and role as change initiator.⁵ Changing internal relations and technological interdependencies play an important part in this process.

The emergence and development of the biotech company's marketing change processes can not be separated from how they became positioned in the ongoing structural change processes of the corporation Pharmacia. The position changes of the emerging and changing industrial corporation shaped the dynamic context of the "new" emerging company and its marketing change episodes, and vice versa.

PHARMACIA BIOTECH AND THE PHARMACIA CORPORATION'S POSITION CHANGES

A central aspect of the moving context of marketing change episodes concerns the dynamic interplay between the intra-organizational relations and the external, inter-organizational relations of the corporation as a whole and of the focal company. In addition, different internal units - companies - over time shift the role as driving force ("locomotive") for the corporation's and the other inter-linked companies' changing positions. An important characteristic which also gives the opportunities and constraints for the marketing actions are the changing *roles* that different internal divisions/companies develop in relation to each other; these in turn are connected to their respective role changes in relation to external units.

As an interplay between the three emerging divisions for pharmaceuticals, diagnostics and separation products, including their internal relations and role changes, the emergence of Pharmacia Biotech within Pharmacia reflects an internal, triadic network change, over three periods:

⁵Taking Pharmacia's point of view we exclude from this discussion e.g the fact that *other network actors concurrently develop new bases for initiating change*: The corporation's successive alteration of the foundations for introducing change in various production systems over time becomes more strongly connected to other organizations' changes. The introduction of competition and links via customers to both competing and complementary actors become more visible during the 1980s. It concerns all the major Pharmacia Divisions, but is probably most rapid for the Biotech Division. The number of industrial giants and small R&D firms entering the biotech equipment business during the 1980s increases rapidly. Structural changes by competing equipment manufacturers, similar to the Biotech Division's acquisitions of P-L Biochemicals and LKB Produkter, increases the polarization into a small number of large suppliers with strong positions in several production systems, and a large number of small biotech suppliers with niche positions. Similar changes affect also the Diagnostics and Pharmaceutical Divisions. In the latter case, the stable process towards concentration continues, with growing global pharmaceutical corporations. Like Pharmacia, other pharmaceutical giants continue to engage in strategic alliances and acquisitions, adapting to increasing costs for R&D, in the move towards molecular biology based R&D and production, and in the move towards shorter times for product development and market introduction.

The emergence of the separation product and diagnostics divisions 1959-75, complementing the existing pharmaceutical division, is firmly founded on the common ground of the dextran research. The launching of Macrodex (Pharmaceutical Division), during the period is followed by the Sephadex (Separation Products Division) and the RIA tests (Diagnostics Division), all of which are firmly rooted in the dextran R&D activities. Complementing the external contacts, stable *R&D relations* develop between the three Uppsala based units. The common knowledge base in dextran technology and the separation products as tools in the R&D processes become important backbones of Pharmacia's total R&D efforts. The R&D contacts are partly controlled by the general Pharmacia management group and the close management contacts between the divisional management groups.

From the late 1970s until the mid 1980s - the period when Pharmacia starts to define the corporation as positioned within the new biotechnology - the contacts AT divisional level start to change character. Due to an increased externalization of R&D contacts and the growth of the corporate network of organizations and external contacts, the former close R&D relations weaken somewhat. Concurrently, the emerging focus on internal efficiency, cost control and increased divisional independence leads the Separation Products Division to develop stricter internal pricing procedures for supplies to the Pharmaceutical and the Diagnostics Divisions. Parallel to the *direct and indirect R&D relations* between the divisions, two parallel *supplier-buyer relations* begin to emerge within Pharmacia, with the Separation Products Division as the supplier.

During the radical external expansion from 1986 to 1992-93, the internal relations between the three divisions - having now expanded into three intra-corporate company networks - continue to change according to the path of the preceding period. The biotech division continues to establish more *regular supplier-buyer relationships* with units in Pharmacia. The former, tight and close R&D connections continue to weaken; all three divisions turn openly to their own external partners. The process is driven by the fact that the pharmaceutical and diagnostics divisions turn also to other equipment suppliers (e.g the Pharmaceutical Division in Uppsala approach other process equipment suppliers), and by the fact that other customers of the Biotech Division start to become more important. In the reorganization in 1992, when Pharmacia Biotech is established, the transformation from internal R&D relations towards supplier-buyer relations is very evident.

The internal resource base for introducing change

During the three periods the resource base for introducing change is altered:

With the exception for the somewhat more diversified pharmaceutical division, Pharmacia as a whole is firmly rooted in the dextran based R&D during the first period. All three Divisions contribute to the positioning in new customer networks, concurrently supporting each other with products and knowledge related to dextran technology. BTG's contributions in separation technology support the other divisions directly, but also indirectly by being linked as laboratory instrument supplier to a number of emerging research areas.

From the late 1970s, the common base is reformulated. The corporation's position in the new biotechnology becomes the new common denominator. The number of external R&D contacts and resource bases increases in all three divisions. BTG becomes an important locomotive for Pharmacia into the new, molecular biology based R&D. The expansion into molecular biology reagents (the acquisition of P-L Biochemicals) becomes an important step in the process of establishing a new resource base in the new biotechnology. The base is becoming more diversified, but the idea of the strong, internal technological "synergism" remains.

During the last period, from the mid 1980s, the diversification process continues. There is no clear, common resource base for Pharmacia's position changes in the pharmaceutical-biotech-health care complex. While BTG expands its existing resource base in separation technology (acquisition of LKB), the other Pharmacia units develop an increasingly more diversified resource base. The interdependencies between Pharmacia's and BTG's position changes are becoming organizational rather than technological, and with the more powerful pharmaceutical units of Pharmacia as the important locomotive and driving force for change.

Interdependencies between different roles

Along with the changes in resource base and technologies, there is also a changing interdependency between roles of Pharmacia and BTG during the three periods:

During the period 1959-1975, Pharmacia changes from being a pharmaceutical company supplying chemical based drugs to becoming a pharmaceutical-medical equipment manufacturer with a biological and biochemical foundation. During this period, BTG emerges as separation equipment supplier, beginning to take the role as "spearhead" for the whole corporation's entry into the new biotechnology.

These role changes are accentuated during the next period 1975-1985. BTG is presented as having the role as the whole corporation's spearhead and motor for the positioning in the new, molecular biology based biotechnology.⁶

The last period sees a shift in this respect, as the technological links between the three major Divisions weaken. The growing number of pharmaceutical-health care units - now within the Procordia sphere - gives Kabi-Pharmacia, later Pharmacia, the role as highly diversified, global, pharmaceutical/ health-care/medical equipment manufacturer. Concurrently, this role interdependence with BTG weakens towards the end of the period, as Pharmacia Biotech is created and the new company takes the role as self contained biotech supplier to biotech related industries.

⁶As stated officially in 1983: "...As world leading supplier of biotechnological techniques, the Biotechnology Group - with the old Separation Products Division as core - is Pharmacia's spearhead into the new biotechnology...Its particular competence is now used by customers for e.g cell cultivation based on which it is possible to mass produce vaccines. It is also used as a basis for Pharmacia Pharmaceuticals and the Diagnostics Group whose strategies now are to direct R&D and projects towards the biomolecules,...."(Annual Review 1983, p. 13, transl.)

During the course of the three periods, the importance of BTG and the importance of Pharmacia in the global industrial network are also altered. BTG's importance is initially based on the *technological uniqueness* and the role as unique supplier of certain separation methods for biochemical, academic research. Next, the importance is expanded to encompass the role as almost sole supplier of up-scaled process separation equipment, and supplier of fine chemicals for molecular biology research, among a large number of users. The last period sees another type of change. BTG's importance is slowly redirected; rather than a general technological uniqueness, the importance is being defined in relation to a minor set of industrial key accounts. Concurrently, the remaining parts of Pharmacia are moving towards becoming a global pharmaceutical giant, with important - sometimes dominating - positions among a number of specialist buyers.

Changing R&D relations

The changing relations with R&D partners become central in the interplay between Pharmacia as a whole and BTG over time:

The first period, 1959-1975, is characterized by close contacts between the Pharmacia Research Laboratories' and the new Separation Products Division's R&D relations. The relations with Uppsala University and its department of Biochemistry becomes the important backbone. The Separation Products unit and its research department becomes an important R&D and supplier counterpart with other actors in the local Uppsala region: the University Hospital, Lantbruksuniversitetet, and later with the Biomedical Centre, the Wallenberg Laboratory, and also with governmental institutions like Livsmedelsverket, Statens veterinärmedicinska anstalt, and Socialstyrelsens läkemedelsavdelning. Similar local contacts are being built up in USA, escalating after the move to the new premises in Piscataway. The local American Pharmacia Fine Chemicals Group develops the same type of mixed relations (as R&D counterpart and supplier) with local Universities and R&D organizations. Parallel to the strong local and direct R&D contacts, the Separation Products Division also links Pharmacia indirectly to different global research projects, in which gel filtration and Sephadex products sometimes become standard purification tools.⁷ This mixture of strongly localized and global project relations of the Division pull Pharmacia into the emerging, global biotechnology network.

The process continues during the next period, starting during the late 1970s, when the global investments in the new biotechnology take off and a large number of separate R&D companies spin off from the university and industry sectors. However, there is a shift in BTG's R&D strategy, affecting the former short R&D links to the other Pharmacia Divisions. The R&D contacts become in some cases more indirect, as BTG starts to lift the new R&D ventures and cooperations out of the core of the organizational context of the established Biotechnology Group. The contacts with Uppsala University

⁷Interview, former BTG Executive Manager, 150594

continue, and ARE strengthened within a separate venture for cell research, Bionova, within the Wallenberg Laboratory which is linked to the University. A similar, separate venture in Uppsala is started for cell cultivation, BioCell. During this period, BTG is also one of the important founders of a separate, Pharmacia controlled R&D venture for biosensor research, Biosensor. Two concurrent processes shift the interplay between BTG and Pharmacia as a whole as concerns the alteration of R&D relations: the growth and increased integration of the local Swedish R&D biotech network, and the increase in international R&D relations and contacts. During the first half of the 1980s, Pharmacia and BTG become positioned in the emerging Swedish biotech research network. While Pharmacia continues to develop strong bonds with units connected to the Uppsala and Umeå universities and regions, other companies develop contacts in other university regions. Despite the strong local contacts, the short distances in the Swedish biotech network give Pharmacia links with many of the other major universities and university hospitals. Important elements in the increased external R&D orientation of BTG is the attempt to relate to local Swedish biotech companies. The cooperation with Alfa-Laval in the process equipment area in the early 1980s contains a high degree of R&D exchange. It links BTG to Alfa-Laval's separation techniques and to the Swiss daughter company in the fermentation area, Chemap. BTG's major step into the new biotechnology and new R&D relations comes with the acquisition of American P-L Biochemicals. Despite the increased separation and externalization of the three Pharmacia Division's R&D relations, there remain some links.⁸ When Pharmacia in the early 1980s starts a new joint venture company together with Chiron in USA for developing pharmaceuticals based on biosynthetic enzymes, it is connected to both the Pharmaceutical and the Biotech Divisions.⁹ The latter is to provide the equipments and methods for the purification steps. The same type of connections appear in other R&D relations between Pharmacia and American organizations. The internationalization of the R&D relations encompasses relations between Pharmacia and LaJolla Cancer Research Foundation, University of California San Diego, Columbia University, Long Island University, Centre of Disease Control, University of Manitoba. In other areas of the world relations are developed with Bradford University (UK), University of Oxford (UK), Tokyo Women Hospital University (Japan), Tumour Laboratory Kokubunji-shi (Japan), and Monash University (Australia).

After 1986, the R&D relations of all three divisions are further specialized. The expanding pharmaceutical group develops its own internal molecular biology competence and external network

⁸Both the Diagnostics and the Pharmaceutical Divisions develop external - Sweden based and international - R&D contacts. For example, Pharmacia Diagnostics becomes a central actor in local Swedish R&D networks encompassing e.g. Alfa-Laval, KabiGen, Sockerbolaget, KabiVitrum, BioCarb and the local university hospitals. To this network belongs partly also the Finnish LKB subsidiary for diagnostics instruments, Wallac. The Diagnostics division relates to international biotech R&D focused on monoclonal technology.

⁹It can be noted that KabiVitrum via partly owned KabiGen, and contacts with Genetech and Biogen in USA, the Universities and University Hospitals in Sweden, and others, earlier develop a more central position in Swedish pharmaceutical R&D connected to molecular biological DNA research. Via e.g. LaJolla Research Center in USA, the pharmaceutical units of Pharmacia relate to pharmaceutical DNA research. The two companies' pharmaceutical R&D relations and contacts are later connected through the Procordia-Pharmacia-Providor deal. In 1993, and after the merger with Italian Erbamont, the now enlarged pharmaceutical group (from former Pharmacia, Kabi-Vitrum and Erbamont) collects molecular biology based pharmaceutical R&D to a Stockholm and Milan based venture, the Bio-Science Center.

contacts, while BTG continues to develop its own relations. Former specialized R&D relations are complemented with a more intense analysis of key account relations in the industry and among the large number of academic customers. Some of the key accounts are chosen because they are considered important for Pharmacia Biotech's technological development and future position in the biotechnology network. The combination of increased externalization of R&D relations (for BTG and for the other two divisions) within both the growing Swedish biotech network and in the international arena contribute to diminish the importance of the direct internal R&D relations in the emerging biotechnology network between BTG and Pharmacia as corporation. However, links remain - OFTEN via foreign R&D partners - when the researchers connected to the pharmaceutical R&D organization are combined with supplies from BTG units.

Changing customer relations

Throughout the three depicted periods, the three Pharmacia divisions establish relations with an increasingly diverse set of customers. All divisions contribute to Pharmacia's positioning in a number of diverse networks and user situations, often based on relations with specialists and important niche customers:

All three divisions already start to pull in different directions in 1959-75. The Diagnostics Division becomes to some extent an intermediate link between the other two major divisions. Some of the Diagnostics Division's customers - e.g. clinics and clinical laboratories and test centres - come to have some similarities with customer groups of the two other divisions. On the whole, there emerge over time greater differences between customer groups and relations.

In the 1980s and 1990s, the differentiation continues, as each of the three divisions develops relationships with an increasingly diverse set of customers. The growing pharmaceutical group develops contacts with an increasing number of different specialists within oncology, immunology, peptide hormones, anaesthesia, drug delivery systems, and other areas. While the Diagnostics Division remains firmly positioned among doctors, clinics and laboratories engaged in allergy diagnostics, BTG continues to develop relations with academic customers, new R&D (biotech) companies, governmental organizations (e.g. control laboratories), clinical laboratories, and pharmaceutical companies' R&D departments and production departments. An increasing number of the academic and independent R&D companies use BTG's separation supplies and molecular biology supplies in connection with molecular biology research. Some customer connections develop between the Diagnostics Division and BTG. Similar connections also develop between Pharmacia Biotech and the new independent Pharmacia company for biosensor instruments, Pharmacia Biosensor, in some cases developing relations with the same research organizations.¹⁰

¹⁰The fact that Pharmacia Biotech develops customer relations with some of Pharmacia's competitors in the pharmaceutical industry only in some rare cases causes tensions. For example, Denmark BTG's process division has to handle the situation that a large potential buyer of process supplies - one of the Pharmaceutical Division's European competitors - require the local Danish, Pharmacia subsidiary organization to adapt the

While the differentiation of customer relations steadily increases, they are channelled from the start through the same intermediate subsidiary organizations. Beginning with an internal specialization of diagnostics, pharmaceutical and biotech units in the subsidiaries, the process continues in the 1980s with an increasing differentiation of the three internal units. In 1992, there are only some minor overlaps between the three sales channels and organizations of the three former product divisions. In 1993, customers are reached via separate intermediaries for Pharmacia (encompassing a great variety of intermediary types: subsidiaries with specialized sales groups, agents, sales cooperation agreements with other manufacturers, etc.), Biosensor (on the way to build up its own sales units in Europe and North America) and Pharmacia Biotech (4 regional offices connected to local sales offices, and agents in some minor, distant markets.)

Changing relations with other manufacturers

The process of acquiring and establishing relations with other manufacturers does not really take off before the 1980s:

In the early 1980s, all three Pharmacia Division's contribute to the external expansion by acquiring mainly complementary manufacturers: NuTech (Deltec) is connected to Pharmacia's hospital care products, Vespa Inc's allergenes complements the Diagnostics Division's allergy tests, and P-L Biochemicals complements BTG's separation instruments. While the pharmaceutical group's acquisitions in the late 1980s and the mergers in the 1990s partly continue on this path, BTG's acquisition of LKB mainly confirms the position within an area in which BTG is already established. It is also different in the respect that the relation with LKB and the merger concerns both the Diagnostics Division and BTG. Similar connections to two divisions appear in the merger with Kabi in 1989, concerning both the Pharmaceutical and Diagnostics Divisions.

Over time, different companies/divisions succeed each other as the driving force for the whole corporation's change processes. In Pharmacia, the inner core of the corporation becomes the triadic relationships between the three major divisions. Emerging from the same technology and with stable technological exchange between the internal divisions, they develop into more open supplier-buyer relationships. The process gains momentum during the mid 1980s when each division directs attention to a growing set of external relationships (acquisitions, new customers, new R&D relations). The late 80s and early 90s is a period of ambiguity, when the three intra-corporate nets, as a result of the growing pharmaceutical net of organizations, are made to approach each other again (Pharmacia Biosystems and Kabi-Pharmacia are created). The continued extension of the

internal organization in order to reduce the internal contacts and information exchange between the biotech and pharmaceutical units in the subsidiary.

pharmaceutical net coupled with the dismantling of Biosystems, produces two corporate groups moving into separate networks (Pharmacia and Pharmacia Biotech).¹¹

Within this context: An emerging biotech supplier's position changes

Pharmacia Biotech's position changes become over time the position changes of its three emerging divisions - the laboratory equipment division (Pharmacia LKB Biotechnology), the process equipment division (Pharmacia BioProcess) and the molecular biology division (P-L Biochemicals) - later given the status as product companies. The long-term positioning processes of the three biotech units become closer connected as compared to the emerging three divisions of the Corporation. The two first units emerge from the same dextran, gel filtration technology after 1959, and the links remain close. The third emerges in the early 1980s from the Separation Product Division's own expanding R&D activities and from the acquisition of P-L Biochemicals. The links to the laboratory equipment unit are in some respects closer; the two units are in many cases approaching the same laboratory customers. Several steps in molecular biology research processes require standard purification and separation procedures. The importance and roles of the three sub-divisions are altered over time.

Laboratory separation

When the Sephadex Group launches the gel filtration method, it becomes one of the most important and efficient biochemical *separation methods in laboratories* world-wide. In only a few years time, the method becomes established as one of the basic, standard techniques for laboratory separation. In 1993, Pharmacia Biotech estimates Pharmacia LKB Biotechnology to be among the *five* leading, most important, global suppliers of standard equipment for laboratory separation and purification. In the 1970s, complete systems become the new base for changing positions (around 1980, new radically improved speed and precision of existing techniques gives a new unique role), and in the late 1980s, the combined, broad, but heavily reduced, product portfolio gives Pharmacia LKB Biotechnology the role as one among the world's most important suppliers of laboratory standard purification supplies. The merger also makes the unit the most multiplex of the three. The links to Biochrom, and other LKB instrument areas give new roles in the laboratory instrument business.

Process separation

The *process separation* division's importance as supplier of up-scaled biochemical separation installations endures throughout the many changes in the company. In 1993, Pharmacia BioProcess is generally considered the *world leading* supplier of up-scaled chromatographic purification installations for the pharmaceutical industry. From the mid 1970s, the industrial separation group turns to the pharmaceutical industry, providing up-scaled equipments for efficient purification and production of insulins, vaccines, enzymes and hormones. The group improves radically the purification processes

¹¹The former R&D venture Biosensor becomes a third, separate company during this period.

among a large number of the leading pharmaceutical companies. During the 1980s, BioProcess continues to keep its role and importance as leading purification installation supplier, and the role is strengthened by the development and sales of instruments for other steps in the production process, e.g. instruments for several of the preparative steps before process separation.

Molecular biology products

The *molecular biology* group emerges in the 1980s, first internally, then extended through the acquisition of P-L Biochemicals. Among the large number of emerging biotech companies that start to supply molecular biology research chemicals and instruments in the 1980s, Pharmacia P-L Biochemicals gains a position among the *ten* largest and most important global suppliers, according to internal estimations.

Concurrent with the increasing independence of the three units in relation to each other, each develops relationships with partly the same, partly different external actors: customers, suppliers, R&D partners, intermediaries, and other companies/divisions of the Pharmacia Group. After 1992, an internal reorganization process is started. The three product companies Pharmacia LKB Biotechnology, Pharmacia BioProcess and Pharmacia P-L Biochemicals are replaced by four customer adapted product divisions: Process, Systems, Consumables and Reagents. Despite the fact that Process and Systems separate the process scale and the laboratory scale operations, it is acknowledged that closer internal relations are needed in order to coordinate exchanges with pharmaceutical companies using purification in all, and to an increasing extent integrated, research and production steps: basic and applied research, preparative, pilot scale production, and process scale production. Systems also encompass the molecular biology instruments, while Reagents retains the molecular biological fine chemicals.

Three concurrent processes summarize the position changes among customers of the emerging three sub-divisions:

1. Emerging relationships with new types of customers and user situations
2. Changing relationships with existing customers
3. Internal differentiation and polarization of customer relations

1. Emerging relationships with new types of customers and user situations

The genesis and expansion of the new company is reflected in a changing set of customer counterparts. The first relationships with academic biochemical research departments and laboratories is early complemented with relationships with a handful of production organizations in the food and pharmaceutical industries. Successively, the set of customer relations is extended to include pharmaceutical companies' R&D departments and laboratories, governmental control laboratories and

clinical laboratories.¹² In the 1970s, the number of relations with pharmaceutical production departments starts to rise. With the take-off of molecular biology research and the spin-off of private R&D companies from the industry and universities in the 1980s, a new set of customers are included. The number of customer relations rises steadily, but differs between the three divisions. The complexity increases when more departments within pharmaceutical companies are added to the customer portfolio; despite the fact that the formal counterparts - the companies - are the same, the lack of coordination between several customer contacts in different departments often qualify them as "new".¹³

2. *Changing relationships with existing customers*

Concurrent with this process, the process also encompasses changing relations with existing customers. Firstly, many laboratory customers require more intense and shifting contacts with the company as the use of the separation technology and the separation problems become more sophisticated and demands for higher speed and efficiency increase. Some of the laboratory customers also become increasingly involved in new types of research, e.g. molecular biology research in the 1980s. In some cases, Pharmacia Biotech starts to supply equipments also for these activities, from P-L Biochemicals or the group providing molecular biology instruments. Secondly, among the pharmaceutical industry customers, Pharmacia BioProcess is able to supply equipments for several of the purification steps, sometimes requiring interaction with new internal departments; R&D laboratories, preparative, pilot plant departments, and process production departments.

3. *Internal differentiation and polarization of customer relations*

Internally, the changing customer relations lead to processes of differentiation and polarization of the contacts. Firstly, there emerges a group of customer relations with a higher degree of direct contacts between the customer and both the local and the central Pharmacia Biotech units. These are above all the industrial process departments which require more intense support. The laboratory customer relations are also only initially handled by support of the central production units; most contacts are decentralized to the local sales organizations. Secondly, in the 1990s, Pharmacia Biotech moves towards a polarization, a differentiation between key accounts and non key accounts. Among the key accounts, which require intense contacts, are collected both industrial process customers and laboratory scale customers. A new, special division - Consumables - is to support local telemarketing units with standardized contacts and limited technical support.

Two processes emerging in the 1990s command attention. Firstly, the acknowledgement of considerable *account overlaps* between the three sub-divisions/product companies of Pharmacia Biotech results in internal discussions and attempts to coordinate the parallel

¹²A typology of the emerging set of customer relations during the late 1980s, and 90s, made by the new After Sales Service Division, is presented in chapter 2 in the case book.

¹³In the early 90s, these "account overlaps" are acknowledged in internal analyses of the present customer situation. It is described in chapter 2 in the case book.

relationships with departments in the same pharmaceutical company better.¹⁴ Secondly, in Pharmacia BioProcess concerns are raised about the global pharmaceutical company customers' moves towards coordinated global sourcing strategies. In the 1990s, discussions start concerning coordination of parallel contacts with different production departments but within the same global corporation.

Summing up, and reducing Pharmacia Biotech's external positioning process to its customer relations, there is a change over time in customer orientation (figure 7.2):

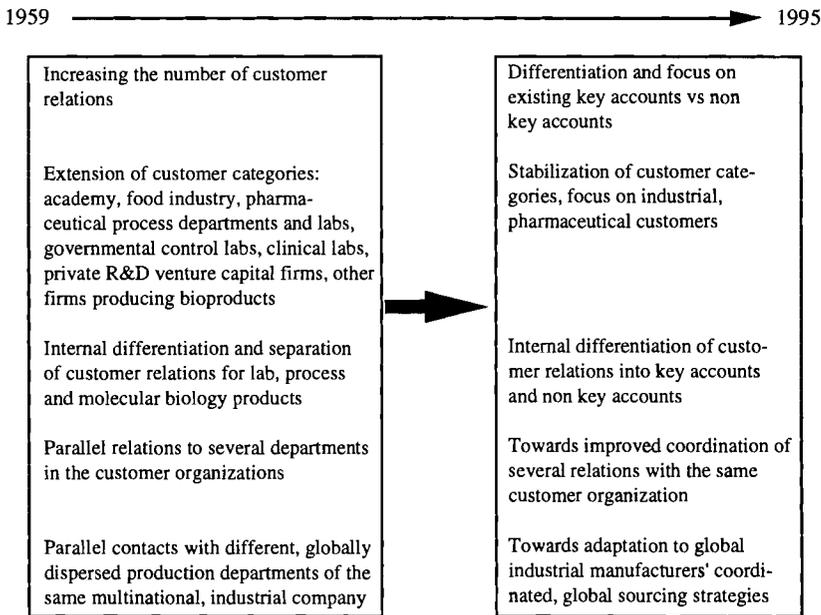


Figure 7.2. Summary of general changes in BTG's relations with customers (Focus on pharmaceutical key account customers.)

IN CONCLUSION: THE CORPORATION AS A MORPHOGENETIC NODE

What is an industrial actor? The question has no easy answer, but is important as the continuous redefinitions of what constitutes the "relevant" borders between actors seem to be closely connected to the change and stability of marketing change episodes, and to change agents' interpretations and enactments of structures. The picture emerging here is the industrial company and corporation as a dynamic, morphogenetic node, (a net of actors) acting at the intersections of several networks and production systems.¹⁵ Reasons

¹⁴Described in chapter 2 in the case book.

¹⁵Returning to the concept of *morphogenesis* and *morphogenetic systems* it here concerns those processes with multiple feedbacks that constantly elaborate and change a system's form, structure or state. Building on and quoting Archer(1985, 1988), Sztompka(1993) states: "The main feature distinguishing social systems from

for contradictions, tensions, and ambiguities inherent in the relationship between marketing change agency and structure over time, can be looked for in the node, in the corporate "actor" and how it is interpreted and redefined over time.

The emergent properties of Pharmacia can be narrowed down from a network perspective to three concurrent and interdependent processes:

- 1.Expansion
- 2.Recombination
- 3.Polarization

When expanding, the company successively integrates more external actors in the corporation. (There are also minor steps in the case when actors are divested and de-integrated in the process). Within the expanding actor or node, there is a need to combine and recombine the set of "internal" actors constantly in new ways, e.g in order to share resources or take advantage of technological complementarities. Despite the fact that a set of combined internal actors belong to the same corporation, it does not necessarily mean that there are any stable, preceding relations to build on.¹⁶ In the process of combining and recombining actors, sub-groups can emerge and "polarize", defining, for example, the ("node's") major technological or business areas.¹⁷

1.Expansion

During the growth from company to a multi-business corporation, it successively becomes more of its own context. The border within which company units become formally part of "Pharmacia" successively expands. The degree to which the expansion process leads to new intra-corporate relationships varies over time. In most cases, some form of internal contacts have to be established between internal companies as a new actor is incorporated. It can be a question of establishing new management contacts in order to coordinate certain strategic activities or it can be a process of total fusion of two or several companies' activities, resources and organizational units. There can be significant lags between the formal inclusion of a new actor and the stabilization of new internal relations - and sometimes also of new activity patterns - which support the strategy for the new internal actor. In Pharmacia, the expansion process is coupled with both an increasing internalization of actors, but also with a concurrent diversification. Each of the major divisions becomes active in the ongoing expansion process. There are obvious peaks in the expansion process (1982, 1986, and 1989) when all divisions expand concurrently, and times when one division expands more than the others (the Pharmaceutical Division from 1989 and onwards).

organic or mechanical ones is their capacity to undergo radical restructuring (Archer 1988,;xxii). Such restructuring is ultimately due to human agency: 'structural patterning is inextricably grounded in practical interaction (Archer 1985: 59). The central notion of morphogenesis 'refers to the complex interchanges between structures and actions that produce change in a System's given form, structure or state'(1985: xxii)." (In: Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, p.199)

¹⁶As manifested in the Biosystems venture 1989-1992.

¹⁷As when the two polar groups Kabi-Pharmacia and Pharmacia Biosystems are created 1989-1992.

2.Recombination

As the company expands, there is a need to find ways to successively unite and disunite - recombine - certain divisions or companies in the corporation. Formal reorganizations, in which internal actors are continually grouped and regrouped in new ways, are done for different reasons, and they signal shifts which lead to various adaptations of internal contacts and relations between organizational units. The degree of adaptations of internal relations varies: it can be a matter of establishing new management contacts to coordinate a limited number of activities (e.g as when the initial plans for the new loosely coupled units within Biosystems are drawn in 1989-90), or a matter of establishing a new set of relationships within the corporate network (e.g as when the Biosystems venture starts to turn into an operational group of companies in 1991). The processes need not be straightforward. Groups and constellations are formed, are broken up, and new groups are formed again. The continual recombination processes take place both on the intra-corporate level (e.g. as between the companies of the Pharmaceutical, Diagnostics and Biotech Divisions in Pharmacia) and within single companies of the corporation (e.g as between the laboratory products, process separation and molecular biology companies of Pharmacia Biotech, the former Biotech Division). Internal and external relations and contacts are affected by the continual recombination processes.

3.Polarization

The need for certain internal actors or groups of actors to stand alone and develop their own positions successively pulls groups of internal, corporate units apart. During the 1990s, the former technological and management links between Pharmacia's pharmaceutical, biotech and diagnostics divisions successively become weaker when the pharmaceutical units are engaged in mergers with the Kabi and Erbamont groups. As a result, the biotech organizations and their connected network of actors, and the pharmaceutical-diagnostics-medical equipment group move in separate directions. There are signs of a more open polarization where the two groups of Pharmacia actors begin to gather about two business operations: Pharmacia Biotech as biotech supplier with industrial customers as emerging focus, and Kabi-Pharmacia (Pharmacia) as a new pharmaceutical giant with positions in a growing number of niche areas within the global pharmaceutical-health care sector. The intensified polarization process is to a large extent customer driven. The polarization is connected with uncoupling and divestment processes. Companies are sold and activities are divested, and between Pharmacia Biotech and companies within Kabi-Pharmacia, the stable process of developing supplier-buyer relationships for biotech supplies continues. Former R&D relations are replaced by supplier-buyer relations, amplified by the fact that the pharmaceutical and diagnostics divisions do not hesitate to approach competing suppliers to Pharmacia Biotech.(e.g. Millipore-Waters).

And there are interdependencies between the expansion, recombination and polarization processes:

The process of expansion is central during the 60s, 70s and early 80s, attracting much attention of internal actors during the peaks in 1982, 1986, 1989 and 1993. During the 1980s, the processes of

internal recombinations also come to draw new attention. From the early 1980s until the dissolution of Biosystems 1992, there is an increasing intensity in the process of uniting and reuniting companies within the corporation, continually creating new configurations and groups. Concurrently, and beginning with the start of the separation product business in 1959, the increasing differences between external network relations (i.e. customer relations) of the divisions successively pull them towards separate networks. The polarization process is there from the beginning but is counteracted for decades by the internal technological R&D relations, management relations, and the institutionalized idea and strategy that the three major divisions should be kept together and interact in order to support Pharmacia's "cross-fertilization strategy" and the common position within the new biotechnology.

The immediate start of a polarization process in the 1960s when the separation product division engages in completely new types of customer relations is partly counteracted by the internal recombination processes in which pharmaceutical, consumer product and separation product units are reorganized but still kept within the same internal organizational boundaries at both central and subsidiary levels. The increased differentiation and start of rapid external expansion in the late 70s is not enough to tear the units apart and let them establish their own positions. As a new integrating factor there emerges the new biotechnology. In the 1980s, the expansion and recombination processes seem to be mutually amplifying. The polarization continues but is dominated by the intensification of the intra-corporate recombinations following from the Procordia deal. After 1991, however, the polarization takes over, dominating the attempts to recombine the growing units within the still expanding corporation.

The Biosystems venture in the early 1990s exemplifies the difficulties of establishing two polar, more power balanced units - Kabi Pharmacia and Pharmacia Biosystems - against the "logics" of the networks and connected production systems. Despite similarities between the biotech, the diagnostics and the medical instrument companies of Biosystems, the different network relations and the activity structures of the biotech, diagnostics and medical devices companies make it difficult to create a new integrated operational structure for Biosystems. The continued recombination when Pharmacia Biotech is established amplifies the redirected polarization process.

From the start, the separation product division becomes connected to a different institutional context as compared to the pharmaceutical companies of the corporation, and this also becomes manifested in the interactions and relationships. While the pharmaceutical units are placed in a setting where strict, pharmaceutical regulations concerning, for example, clinical testing and documentation procedures put their obvious marks on R&D, production and user connected activities and relations, the biotech units become less bound by such regulations. The relations with biotech users are less circumscribed by such strict rules and regulations.

Within these processes of organizational and network change in the corporation, the new, global biotech equipment supplier emerges, establishing its own network position. Despite the fact that the forces of de-integration of the biotech and pharmaceutical activities are there from the start, it will take over thirty years before the de-integration process is on a stable path. In 1992, the "new" company, Pharmacia Biotech, is on the way to becoming self-contained within Pharmacia, enabling the company to direct attention in a more focused way to its relations outside the corporation, i.e. to the relationships with customers.

EMERGING AND CHANGING PATTERNS OF CONTRADICTIONS, TENSIONS AND ACTIONS

It is suggested that reasons for contradictions, tensions, and ambiguities inherent in the relationship between marketing change agency and structure over time, can be looked for in the node, as here in the corporate "actor". It is suggested that patterns of structural overlaps and connections, and subsequently, the internal contradictions and tensions, move within an actor and its network. Change agents' actions and perceived ambiguities will be coupled to these movements. In Pharmacia, it is possible to discern two types of "overlaps" and connections appearing over time: actors in different production systems (pharmaceuticals, diagnostics and biotech) are connected via relations, but share few resources or coordinate few common activities (like when the Biosystems group begins to form after 1990), and secondly, actors have few or weak inter-relationships, but share resources or activities (Pharmacia Diagnostics and Pharmacia BTG sharing local after sales resources, but have fairly weak internal relationships in the channel).

During the 1960s and 70s, the most apparent tension-causing overlaps are located to the central Uppsala organization, while tensions also begin to emerge in other parts of Pharmacia's marketing organization as the parallel systems for biotech and diagnostics activities emerge.

During the 1980s, the external expansion creates internal, intra-corporate overlaps, where single organizations (LKB and intermediary market subsidiaries) control activities in more than one of the three production systems, leading to actions and change. The Biosystems project also contributes to create intra-corporate tensions due to contradictions when the operational Biosystems unit is set to coordinate and control diagnostics, biotech and part of the pharmaceutical units' activities. Likewise, the fact that several local marketing subsidiaries are in the position to control activities in all three areas leads to internal

tensions and various forms of internal uncoupling processes. Contradictions are successively being enacted also in the local marketing organizations.

During the 1990s, the uncoupling of the biotech operations from the pharmaceutical and the diagnostics operations changes the characteristics of perceived overlaps and contradictions. While the interdependencies between the three main operations have earlier created contradictions that become overlaid in unique clusters or patterns - depending on the way that internal actors are involved in the three operations over time - three "new" internal operations create the new, enacted overlaps and internal tensions in the "new" company Pharmacia Biotech: those of Pharmacia LKB Biotechnology, Pharmacia BioProcess Technology and Pharmacia P-L Biochemicals. Attention (and action) is partly directed to the fact that a number of key customers are linked to the activities of more than one of the internal companies for laboratory separation activities, process separation activities and molecular biology activities.

Using the reasoning above and relating back to the discussion in chapter 3, a tentative analysis of the emerging contradictions within Pharmacia over time (from the point of view of Pharmacia Biotech) can be as follows: Contradictions, perceived tensions, attentions, and actions move within Pharmacia as an organization. In the overlapping networks contradictions emerge and can be enacted when e.g resources have to be shared by actors (biotech, pharmaceutical, diagnostics actors) being part of different networks and production systems. Actors acknowledge *the emerging contradictions* as *tensions* between the ongoing operations and actions, and the new structures that emerge. To handle these contradictions and tensions, units initiate *change actions*. These can alter the structure of the network, but in the long run *contradictions* can appear in a new shape and in a new place in the organization and network.

Applying this reasoning to Pharmacia and its biotech organization, one interpretation of the long-term development shows the general, dominating (but far from entire) attentions and change actions to move from the biotech production activities to the distribution and, further, to the user activities:

1960s/70s *Contradictions*

The genesis of the separation media and later the diagnostics products within the realms of the pharmaceutical R&D, production and administration organization in Uppsala creates tensions within the central Uppsala organization. The central pharmaceutical production organization has invested in resources and activities dominated by the production of traditional chemical based pharmaceuticals, e.g the Salazopyrin products. However, the production organization's investments in resources and

activities for dextran based infusion products, e.g. Macrodex, are considerable. The genesis of the dextran based separation media Sephadex creates no internal contradictions and tensions, as long as the complementarities and the common dextran based product and production technology of the blood plasma substitute and separation media production motivate a basically integrated dextran production for the two. Central marketing and administration activities for separation products are also kept within the central pharmaceutical support organization in Uppsala, despite an increased internal specialization of central sales support units. There are tensions in the local marketing organizations as new categories of sales people need to be employed, but these are of a less complicated nature.

In the middle of the 1960s, internal contradictions increase as academic laboratory customers' and new laboratory customers' (e.g. pharmaceutical companies' R&D departments) demands for complete product functions are accentuated. Existing pharmaceutical and medical production technology contrasts with the production technology needed to manufacture separation columns, pumps, monitors, fraction collectors, etc. Internal contradictions emerge as two different production technologies for chemical media and hardware products are to be integrated within the same, pharmaceutical organization in Uppsala.

Similar tensions appear within the central pharmaceutical organization after 1966 when a new internal R&D group is formed to develop products for diagnostic tests. The cooperative venture between Pharmacia, the University Hospital, the Biochemical Institution and American researchers for the development of diagnostic tests results in a number of new diagnostic products. The new production technology, including the new supplier relations that are necessary for purified allergenes contrast with the established pharmaceutical production technology. Part of the separation product production has then already been de-integrated; the new factory for instrument production is opened in Umeå in 1967. Despite successive adaptations and differentiation of the marketing and distribution activities, the major tensions, attentions and reorganizations are located in the production operations.

Change actions

The divergence of production technologies, including also supplies, between the pharmaceutical, the separation product and the diagnostics operations, coupled with a rapid sales growth and expansion of the latter two operations, create internal tensions which make it difficult to keep all three under the same control of the original, central pharmaceutical organization. In 1967, instrument production is moved to Umeå, the first Diagnostics Center in Uppsala is established in the beginning of the 1970s and completely new premises and central organizational units and management, administration and marketing support for the pharmaceutical operations are established in Uppsala.

Network change

The change of the central Uppsala organization due to internal contradictions results in the emergence of a new relationship structure. The three separate production organizations invest in separate supplier

relations and separate R&D relationships.¹⁸ The internal connections between the separation product and the diagnostics organizations successively change. The interconnected R&D activities and relations over time develop into an internal supplier-buyer relationship. (Sephadex has been an important tool in the development of the diagnostic tests). As regards the relationships with marketing subsidiaries, three separate exchange relationships - however under the control of a central HQ-subsidiary management relationship - begin to emerge.

Emerging contradictions and tensions

Overlaps between the pharmaceutical, the diagnostics and the separation product networks emerge during the 1960s and 1970s within the local subsidiary organizations. Due to the size of the three operations, sales resources for all three are successively being integrated in most subsidiaries under the control of the same local subsidiary management group. However, due to the differences between customer groups, requirements for handling customer relationships, and adaptation to different customers' production contexts - laboratory customers (separation products), hospitals and clinics (diagnostics) and hospitals, doctors and clinics (pharmaceuticals) - subsidiary organizations begin to develop separate sales and administration resources, internal or external (i.e. using agents). The clinical laboratories which purchase products from both the separation product and the diagnostics units are in general linked to local subsidiaries through separate exchange relationships. (During the 1980s, many local after sales service units handle the service of both diagnostics and separation product instruments.) During the late 1970s, a different kind of *internal* customer account overlap begins to emerge locally, as the process separation equipment is installed within the production organizations of pharmaceutical company customers. Local subsidiaries are selling both laboratory and process supplies to the same pharmaceutical companies, but due to the fact that different departments handle the purchasing of supplies, two parallel exchange relationships are normally established.

1980s

Contradictions

Two important events during the 1980s result in adaptations due to open contradictions. Firstly LKB, acquired in 1986, has developed network positions in both separation/biotech production and diagnostics/clinical instrumentation. However, while LKB's position in diagnostics and clinical applications is mainly linked to two separate companies, Wallac (immunodiagnostic systems and laboratory instruments) and Sebia (clinical electrophoresis) and not to allergy diagnostics, the internal tensions from integration are to a large extent avoided, insofar that the two companies need not be de-integrated internally (both companies are eventually sold). The main internal contradictions and tensions are instead coupled to the process of creating a new, joint position in the biotech network for the internal actors of Pharmacia BTG and LKB. Attention is directed to the contradictions involved in

¹⁸In the case, we have not included indepth descriptions of changes in the supplier relations. However, during the period when the separation products and the diagnostics operations emerge, there is also a differentiation of supplier structures: the separation products organization in Umeå starts to develop contacts with new suppliers for raw material and semi-finished goods for the growing instrument production, and the diagnostics production organization develops contacts with e.g allergene suppliers.

the fusion of two different production systems, within the same kind of biotech operations. The second major tension is realized in the Volvo-Procordia deal, as Kabi - which has positions in both diagnostics and pharmaceutical production - is integrated with Pharmacia. The direct tensions are mainly realized within the pharmaceutical operations and have little direct effect on Pharmacia's biotech organizations. However, *indirectly* the effects are considerable, leading to new internal contradictions and change, the result of the Biosystems project.

The second locus for tension and contradiction is within the marketing subsidiaries. During the 1980s, organizational heterogeneity increases much as a consequence of the mergers and fusion processes and of the fact that local organizations are growing and developing different local positions in the systems for biotech, diagnostics and pharmaceuticals.

Change actions

The actions to solve the internal contradictions at corporate level emerging from the intra-corporate links and overlaps of the three production systems give rise to the continuous reorganizations in the 1980s. The dismantling of Biosystems in the 1990s seems to be the last step in the process of uncoupling the actors in the biotech network from the diagnostics and pharmaceutical networks.

The heterogeneity among the European marketing subsidiaries which emerges during the 1980s results in a likewise heterogeneous set of actions to handle the overlaps and connections between the three systems. Some subsidiaries keep three separate internal groups controlling the three operations, often under the control of a central management group reporting to Uppsala, and complementing the three parallel exchanges which the internal groups have with the three HQ divisions in Uppsala. In other subsidiaries, action is taken during the 1980s to uncouple local pharmaceutical units. In some subsidiaries, action is also taken to create more independent positions for the diagnostics and the biotech groups. The main internal couplings/overlaps are related to administrative activities and resources, and in some cases to marketing (e.g. after sales resources and support activities for both biotech and diagnostics instruments). The actions to spread the control of the three operations to several organizational units are to a large extent driven by the de-integration efforts of the rapidly expanding pharmaceutical organizations. For example, the emergence and rapid success of the new ophthalmics (eye surgery) product Healon, leading to a new specialized sales and marketing organization, and the efforts during the late 80s to merge Kabi's and Pharmacia's international pharmaceutical marketing networks, are important, de-integrating driving forces.

Network changes

The enacted tensions and intra-corporate changes result in changed structures for the biotech, diagnostics and pharmaceutical networks. As to the latter, major efforts are put into integrating Kabi's and Pharmacia's marketing organizations. A general characteristic of the period is the successive build-up of separate internal, vertical relationships for the biotech units and the diagnostics units.

The period is to some extent also characterized by negative network incidents which later contribute to the internal separation of the three networks. The LKB merger results in weakened or broken relationships with former LKB customers, especially in the biotech area. The same can be observed in LKB contacts with e.g. alliance partners (e.g. Gelman Sciences, IBF, Hitachi, Sebia). During the end of the decade - before the creation and dissolution of Biosystems and thus while strong links still exist between the three networks - efforts are directed at changing the vertical contacts between central units, local subsidiaries and customers within each of the three connected networks. The birth of a number of internal change projects in 1989 is a sign of this new focus.

Emerging contradictions and tensions

The Procordia-Pharmacia-Provencor deal sees the emergence of the Biosystems project and the reversed, renewed connections between the biotech, the diagnostics and part of the pharmaceutical systems. However, within the local subsidiaries the process of intra-organizational decoupling continues and the overlaps which result from the Biosystems project are concentrated to the central organizational units and to the new regional organizations emerging, e.g. to the new regional organization in Brussels.

1990s

Contradictions

After the dismantling of the Biosystems project and the creation of an independent Pharmacia Biotech Group, the enacted contradictions and tensions change radically in character. (The pharmaceutical/diagnostics units are oriented towards the tensions connected to the merger of Kabi-Pharmacia's and Erbamont's production systems and organizational nets). Despite the fact that the uncoupling of diagnostics units from the biotech units in some local organizations lags behind, the new situation for the biotech company results in attention being focused on other parts of the biotech network, mainly on the structure of the customer relations. There is now an increased awareness *within* Pharmacia Biotech that there has emerged a situation which shows similarities with the former situation with three interconnected marketing systems for biotech, diagnostics and pharmaceuticals. However, the new structure of contradictions concerns the three internal biotech units for laboratory, process and molecular biology activities, and this time the observations of overlaps are customer related. It is observed that the three units have developed contacts and relations to various degrees with the same companies, but with units in different parts of the customer organizations. In the new customer focused marketing planning procedures (for Europe) of the new independent company, concerns as to whether to create an integrated account management system are voiced for the first time.¹⁹ The degree of account overlaps differs between types of customers, depending on the fact that BioProcess has developed a stronger position among industrial customers, while P-L Biochemicals is

¹⁹Market planning meeting, 920117: "A clear understanding of key accounts is essential for focusing our efforts centrally and in the regions. This understanding is equally important for sales, marketing and R&D people. Pharmacia P-L, Pharmacia BioProcess and Pharmacia LKB Biotechnology have high degrees of account overlap....PhaLKB overlaps with all of BioProcess and P-L accounts, P-L overlaps with 68% of PhLKB accounts. BioProcess overlaps 20-25% of P-L accounts, and PhLKB overlaps approximately 40-50% of Wallac accounts."

focusing more on the academic customers. Pharmacia LKB Biotechnology has developed exchange relationships with both academic and industrial customers. In most cases, different units within industrial pharmaceutical companies purchase the laboratory supplies and the process supplies. The attention is drawn to these account overlaps also as a result of the fact that the important pharmaceutical customers are beginning to integrate the laboratory, preparatory and the process scale activities.

Change actions

Despite the increased efforts to focus on key accounts and coordinated contacts and exchange routines with customers, no *immediate* change actions are taken to alter the situation and react on the account overlap observed. Within the frames of the European regionalization project, some measures are taken to develop a more focused key account program for the region. Initiatives are taken to redirect local contact patterns. A major division into key account and non key account contacts is made, followed by internal reorganizations in both local and in the regional organizations. There are also steps taken to reorganize the three former product companies into four product divisions at central level, in order to adapt the internal relations to the new structure of local relationships with the customers.

Network change

The observation of account overlaps as such does not result in immediate actions with effects on the network structure of the three internal biotech operations. The internal relationship changes that overshadow the other changes in the system - the organization of new contacts between central, regional and local organizations in the biotech channel - are related to the regionalization change. The regionalization mainly focusing on establishing a new vertical contact structure linking HQ units, regional organization and sub-regions. The change also encompasses internal network changes which aim is to establish new horizontal contacts between local sales organizations in four European sales regions. The remaining relations with diagnostics and pharmaceutical units become weaker.

Emerging contradictions and tensions

During the course of the radical changes in the beginning of the 1990s, the account overlaps observed are complemented with other network complexities. Attention can now be directed to other areas and parts of the system. The orientation towards internal complexities can be replaced by attention to external ones. For example, many of the industrial process customers in the pharmaceutical industry have grown rapidly in size and have become global multinational corporations during the course of the 1980s. Some of the large customers are in the phase of implement global, centrally controlled, sourcing strategies. The implication for Pharmacia BioProcess Technology is an increased need for coordination of contacts between local sales units in different regions and the contacts with the global industry customers' geographically dispersed nets of production units. Despite the fact that the regionalization project has created stronger internal connections between organizations in the European sub-regions, it is not enough. Some industrial customers are operating in several sub-regions, and even

in different continental regions, having established parallel exchange relationships with several of Pharmacia Biotech's local organizations. A shift towards global sourcing strategies will mean that these account overlaps will have to be reorganized and coordinated, maybe across the four global regions. These new tensions begin to emerge and the attentions of the biotech organization begin to be attracted in the beginning of the 1990s.

An industrial network of a large and complex organization like Pharmacia's is likely at any given time to harbor a number of structural inconsistencies.²⁰ From the point of view of contradictions in interlinked and overlapping networks, it can be argued that the fact that marketing organizations become loosely or tightly connected to several production system is an important origin of change. With this interpretation, the overlaps, the contradictions and the direction of attentions and enacted tensions change over time, like the structure of the system.

With this view of Pharmacia Biotech, the enacted tensions change character over time. During the 1990s, tensions and contradictions that occasion the active search for alternative structural arrangements are strongly linked to the necessity of coordinating parallel exchange relationships with similar technological contents (laboratory and process separation technology, molecular biology). Earlier enacted contradictions have been more strongly connected to intercontextual tensions, i.e. to the fact that internal actors in different technological systems of more dissimilar technological contents (biotech, diagnostics, pharmaceuticals) are interconnected and partly share the same resources.

THE DYNAMICS OF MARKETING CHANGE EPISODES AND INTER-CONTEXTUAL CONTRADICTIONS, TENSIONS AND AMBIGUITIES

There is no simple relationship between the way contradictions in the moving context combine in ways which facilitate or in ways which thwart the ongoing mobilizations of actors for change. A change episode is not easily decomposable from the constantly changing industrial, organization context. And the marketing actions emerging in these ecologically complex context are not always easy to separate from strategic actions elsewhere.²¹ The position changes of a focal industrial actor are interdependent with

²⁰Sociologists and organization theorists have observed these kinds of inconsistencies and contradictions in systems and organizations. But as stated by Benson (1977): "...but few have recognized their basis as being a fundamental social process..." (In: Benson, K.J., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, March 1977, p. 14).

²¹In this vein of discussion, March (1988) comments: "Many theories of strategic action assume that strategies of decision-making that are intelligent for a single actor in an ecologically simple world will also prove to be intelligent in a complex ecology involving many actors making choices simultaneously. In effect, a complex world of intelligent action is assumed to be decomposable into numerous simple worlds whose interactions can be ignored. In a structure of nested interactive learning institutions, such a decomposition assumption is likely to be implausible." (In: March, J.G., *Decisions and Organizations*, Oxford: Blackwell, 1988, p. 16)

other internal and external actors' position changes in the industrial network. The position is determined by the positions of the other actors. And the actor is morphogenetic; it is continually redefined and changed by its own and by the actions and position changes of others. This creates new part-whole relations in the network in which a marketing "channel" is embedded, and consequently, resulting in new structures of complementarities and contradictions.

Collecting the empirical observations, the tentative interpretation above and the construct²²s from chapter 3 in a general, simplified circular model, where marketing actions are placed in a process without any clear beginning or end, we can make a tentative interpretation of how they can relate (figure 7.3.). We assume that there are: 1) continuously emerging *contradictions* (Benson 1977) in organizations and systems,²³ due to *network overlaps* with no one-to-one correspondence between the network governance structure and the production system (and due to external influences depending on network definition), (Johanson and Mattsson 1992, Mattsson 1996);²⁴ 2) *tensions* between individual and collective actions and changes in structural part-whole relations (Astley and Van de Ven 1981);²⁵ 3) various *ambiguities* surrounding actions and decision making;²⁶ and 4) stabilization and change of *processes and contents* (Pettigrew 1985) in ongoing marketing actions and in particular marketing change episodes.²⁷

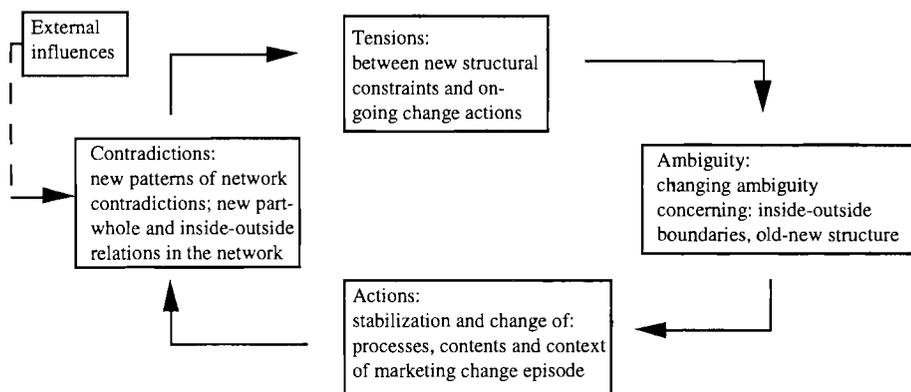


Figure 7.3. Circular relationship between moving context and marketing actions

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²³Benson, K.J., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, pp. 1-21, March 1977

²⁴Johanson, J. and Mattsson, L-G., "Network positions and strategic action - an analytical framework", In: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 205-217, 1992, and Mattsson, L-G, "Dynamics of Overlapping Networks and Strategic Actions by the International Firm", to be published in: Chandler, Hagström and Sölvell (eds.), *The Dynamic Firm*, Oxford: Oxford University Press, 1996 (forthcoming).

²⁵Astley, W.G. and Van de Ven, A.H., "Mapping the Field to Create a Dynamic Perspective on Organization Design and Behavior", In: Joyce, W.F. and Van de Ven, A.H.(eds.), *Perspectives on Organization Design and Behavior*, New York:Wiley, pp.427-468, 1981

²⁶March, J.G., *Decisions and Organizations*, Oxford: Blackwell, 1988

²⁷Pettigrew, A., *The Awakening Giant - Continuity and Change in ICI*, Oxford: Basil Blackwell, 1985

Putting the continual marketing actions and changes (which we can delineate with tentative boundaries and call *change episodes*) in a moving network context where contradictions will always be part of the contextual characteristics, the ideas and concepts can be connected.

1. Taking a long-term perspective on marketing change and relating to the preceding discussion on Pharmacia Biotech's long-term change within the Pharmacia Corporation it can be assumed that a network will harbour patterns of contradictions. For example, when an organization grows (Pharmacia as a whole and Pharmacia Fine Chemicals in the 1960s and 70s) and the internal-external definitions change, resource requirement contradictions can emerge, like in the production organization for pharmaceuticals and separation products during the early growth period of the separation product unit.²⁸ The production system structure can become contradictory to the emerging organization and governance structure. There are different, growing marketing organizations for pharmaceuticals and separation products.²⁹ The contradictions thus can activate tensions and define limits of ongoing operations, actions and changes within a particular period, like when the production organization is expanded and reorganized towards the end of the 1960s.³⁰

2. Assuming a continually ongoing process of marketing actions, the contradictions will activate tensions between the ongoing individual and collective actions and the new emerging structure of part-whole relations in the marketing network. For example, the ongoing, increased specialization of marketing organizations and resources goes partly against the integration of production related resources in Pharmacia around 1967.³¹

3. These tensions between actions and the contradictions in the emerging structures can be assumed to result in ambiguities about the present and the future preferred structure.

²⁸Zeit (1980) states about resource requirement contradictions in interorganizational systems: "This involves contradictory demands for sets of resources, and not just competition. That is, resource requirements for one process are inherently antithetical to the requirements of another process...One important contradiction in interorganizational relationships is between technological resources and the administrative forms needed to manage them effectively." (In: Zeit, G., "Interorganizational Dialectics", *Administrative Science Quarterly*, Vol.25, March 1980, pp.81-82)

²⁹Benson (1977) says in this respect:"Firstly, there is in any social setting a contradiction between ongoing production and the previously established social formation...the production process is carried out in different social contexts producing multiple and incompatible social forms.." and subsequently "social contradictions have important effects upon production (1) They may occasion dislocations and crisis which activate the search for alternative social arrangements...(In:Benson, K.J., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, March 1977, p.5)

³⁰Ibid, p.5

³¹As stated by Astley and Van de Ven(1981):"The interesting questions and problems, then, turn on how structural forms and personnel actions interrelate and produce tensions that stimulate changes over time...(In: Astley, W.G. and Van de Ven, A.H., "Mapping the Field to Create a Dynamic Perspective on Organization Design and Behavior", In: Joyce, W.F. and Van de Ven, A.H.(eds.), *Perspectives on Organization Design and Behavior*, New York:Wiley, 1981, p.455)

For example, it can be acknowledged how the emerging tensions and needs to take decisions on whether to invest in new and separate production organizations and resources for separation products are coupled with considerable uncertainties and ambiguities. Before 1967, such ambiguities can be discerned in Pharmacia's documented planning and decision processes and in retrospectives concerning the start of instrument production in Umeå.³²

4. It can be assumed that the ambiguities are handled - coping with them or avoiding them by redirecting attentions - by stabilizing or changing the processes and contents of ongoing actions. Before 1967, considerable attention is directed towards the production organization, resources and activities. The company starts to formulate the contents and implementation process plans for instrument production, separated from the Uppsala based dextran production of separation chemicals. The adaptation of change actions depends on the allocation of attention, on interpretations of the structure, and on the buffering behaviour of change agents.³³ Different change activities receive varying degrees of attention and resource commitments during different time periods.

In a longer perspective, it can be assumed that as a result of the stabilization or alteration of various contents and processes of ongoing actions in different parts of an organizational context, new patterns of contradictions will emerge in the context.³⁴ New tensions between ongoing actions and perceived, new structural constraints will emerge, with new ambiguities about how to interpret them and with ambiguities about intentions and preferences in this new situation. Ongoing change processes and contents will be stabilized and/or altered in order to cope with the situation. And to broaden the concept "action" we might include in this also "inaction"; the alternative to cope with ambiguities by choosing to do nothing in direct response, or delaying the actions and act instead in response to new emerging contradictions and tensions. And the process continues. Over longer time periods, attentions are redirected; contradictions and attentions move within the context. (In the last section, we argued that over time in Pharmacia Biotech, the

³²March (1988) states: "The first ambiguity is an ambiguity about preferences...Observations of organizations suggest that preferences are often far from consistent, stable or exogeneous...organizational preferences change, partly as a result of exogeneous pressures but also partly as a result of the actions they control. Aspiration levels adapt to experience, and the dimensions of desires are transformed through the experience of deciding among actions, implementing them and observing their consequences. (In: March, J.G., *Decisions and Organizations*, Oxford: Blackwell, 1988, p.12)

³³In accordance with March (1988), it can be assumed that the dynamics and development of strategic marketing change episodes are dependent on the organization's overall pattern of directing attention and energies among its various activities and goals., (ibid, p. 4)

³⁴Zeitiz (1980) argues that focus should be directed at these processes:"Attention should be given to the principal contradictions, the crisis tendencies, the conditions of exchange, and the types of resources which most constrain interactions...it is important to examine in detail how the resources produced by action come to persist and to constrain interactions at later time points. ...the dialectical process of action, context-creation, and constraint is essentially historical."(In: Zeitiz, G., "Interorganizational Dialectics", *Administrative Science Quarterly*, Vol.25, March 1980, p.86)

overall attentions of the company and the change actions are redirected. Much attention is directed at handling tensions and ambiguities in the production system, to be replaced by attentions directed at the marketing organization, and subsequently, in the 1990s at the interactions with customers and the customer relations.)

When a particular marketing action or change episode is started influences its subsequent development. With the view of marketing change as a collective process with arbitrary boundaries between marketing and non-marketing actions, it can be assumed that lead and lag effects can separate the tensions, perceived ambiguities and adaptations of ongoing change actions. Actors perceive tensions and ambiguities created by actions elsewhere and by other actors in the emerging, historical processes. When loosely coupled, the result might be that contents and processes of ongoing marketing change episodes are adapted to a contextual network structure which has changed when the marketing changes are being implemented. During the 1990s, this occurs frequently as a result of the fact that many concurrent change processes are altering the structure while change contents and processes are implemented. Hence, with multiple actors, with concurrent actions with lead and lag effects, and with loose couplings between them, changes will not evolve within clearcut means-end frames.

In a shorter time perspective, the processes and the marketing change actions that are started in Pharmacia and Pharmacia Biotech 1989-1993 come to reveal the complex relationships between emerging network contradictions, tensions between new structural constraints and ongoing actions, ambiguities about structures and actions of stabilization and change in marketing change episodes. The relationships come to be characterized by the fact that many change processes are connected by their concurrence.³⁵

Part of the attractiveness of the ambiguity surrounding changes in industrial marketing systems, lies in change agents' ability to use structural network ambiguities for unambiguous ends.³⁶ As observed, marketing change agents can use a number of different ways to cope with ambiguities, using them as driving force for stabilizing or changing ongoing marketing actions in the change episodes. Directing attention towards

³⁵In this short time perspective, and due to the concurrence of change processes in Pharmacia Biotech 1989-1993, they showed elements of what March (1988) has described as a garbage can model of organizational decision-making: "Actual events in organizations appear to be much less tightly coupled (March 1978) Often there appear to be deep ambiguities in the causal linkages among various activities of an organization, between problems and their 'solutions', and between how managers act and how they talk (Cohen and March 1974; 1986; March and Olsen 1976; March 1984)...In a garbage can model, problems, solutions, and decision-makers are connected less by their causal relevance than by their simultaneity (March and Olsen, 1986). It is not a system of disorder, but it appears disorderly when considered within a standard means-end frame.", (ibid, p.13).

³⁶Relating to the assumption made by March (1988): "...ambiguity is not only a fact of life, thus a necessary context for action by rational actors, but also often a normatively attractive state.", (ibid, p.15).

them, exploring and coping with them is one obvious way for marketing change agents to move towards unambiguous ends. Buffering from ambiguities is another.

BUFFERING MARKETING CHANGE EPISODES FROM MOVEMENTS IN THE CONTEXT

Having stated that industrial marketing change episodes are contextually embedded and dependent on a larger whole, the pattern of allocating attention is also the basis for marketing change agents to buffer the contents and processes of particular marketing change episodes from other ongoing changes.³⁷ There is scarcity of time and other resources, from which it follows that change agents can buffer current marketing actions from new problems and tensions arising in the context as a result of position changes and new actor and network structures emerging. Marketing change agents can refrain from attending to new tensions emerging, or alternatively, solve the new emerging problems/tensions in a chosen consecutive order. The change agents can, from their respective positions in the organizational network, handle this context dependence by applying different *attention buffers* in the organization to limit the salience of conflicting and contradictory demands.³⁸

The change agents of Pharmacia Biotech's distribution change episode buffer partly from the structural and processual contradictions emerging by *redirecting the change process to other contexts*, to other relationships and counterparts. By partly avoiding to engage in and interact with the new Biosystems organization in Brussels, and turning directly to only some of the local subsidiaries in Europe and some local subsidiaries in other regions, most of the original ideas and change contents can be kept stable. This also includes partial buffering from the new - partly competing, partly complementary - European logistics project being started by the new Biosystems organization in Brussels.

As regards the regionalization episode, the timing is somewhat different. The process to regionalize the European marketing organizations comes to a stop just before the take-off. The new Biosystems organization has already been implemented. While the reorganization/regionalization can continue as planned in the North American organization - buffering partly from the organizational effects of Biosystems - it is difficult to buffer from the change in Europe. The time schedule of the regionalization process is altered and the change contents have to be adapted to the fact that a larger group of Biosystems companies shall be included instead of only the biotech companies. The buffering is regionalized.

³⁷Discussed e.g. in Cyert, R.M. and March, J.G., *A Behavioral Theory of the Firm*, Englewood Cliffs, N.J.: Prentice-Hall, , 1963

³⁸Concept used by March (1988). (In: March, J.G., *Decisions and Organizations*, Oxford: Basil Blackwell, 1988).
p. 7

In the after sales service change, the contents and the processes of the change episode have to be adapted to the concurrent effects of the Biosystems venture and the regionalization program in Europe. The partial buffering procedures have similarities with those of the distribution episode. First the speed of the process slows down, then the task force group in some matters ignore interactions with the new Biosystems organization in Brussels, aiming straight for the subsidiaries for mobilization of change. Some of the original change contents of the plans have to be adapted to the fact that a new after sales unit in Brussels is planned to start a review of the after sales activities in the region. Like in the distribution episode, buffering from change is done by interacting in the old channel structure, while a new structure is implemented with an intermediate organization between HQ and the subsidiaries.

Hence, the processes of allocating attention, and of adapting to and/or buffering from concurrent contextual changes, become important for the development of the contents and processes of strategic marketing change episodes. To be or not to be "myopic" - to buffer or not to buffer from contextual changes - is an important aspect of the marketing change strategy. Irrespective of definition and delimitation of the "industrial marketing" activities, "marketing myopia" can be a temporary strategy to achieve things in a complex organizational context. The scarcities of time and resources become an important restriction and buffer for implementation of strategic marketing changes. The dynamics of the change contents and processes depend partly on the fact that not everything in a technologically complex industrial organization and network can be attended to at once. Inconsistent demands between the strategic marketing change episodes and other ongoing structural change processes, can be sustained in the network by various buffering behaviours. Pharmacia's way of solving problems in one part of the organizational context, becomes the origins of tensions in another part of the context, e.g in Pharmacia Biotech, which in turn are solved and create new tensions in another part, and so on. Irrespective of organizational levels where the new tensions appear, the circularity seems endless:³⁹

The buffers that make attention to conflicting pressures sequential rather than simultaneous result in organizational phenomena that are often viewed as perverse or inefficient. Organizations solve problems in one part of their domain by creating problems in another, which in turn are solved by creating problems in the first (or another) domain (Cyert and March 1963). They set policies that they do not subsequently implement (March and Olsen, 1976; Baier, March and Saetren, 1986). They are tolerant of substantial inconsistencies among actions of different subunits, and they allow the elaboration of multiple duplicative resources and activities (Cohen and March, 1974; 1986; March and Olsen, 1976) These apparently peculiar processes, however, cannot be trivially eliminated.

What is (economically, technologically, etc.) optimal for a unit in an industrial organization and network aiming to introduce a marketing change - be it a limited action to modify price, promotion, product, or to make a major reorganization of the marketing

³⁹March (1988), *ibid*, pp. 7-8

channel organization - may be contradictory to a number of units in other parts of the network. These contextual complexities are part of the reality of industrial marketing and distribution, and cannot easily be ignored.

LINKS TO MOVEMENTS IN THE INDUSTRIAL BIOTECHNOLOGY-PHARMACEUTICAL NETWORK

The strategic changes of an industrial firm's marketing organization in the fluid networks of interconnected industries are both proactive actions to control and redirect the company's present position, and adaptations to the fact that the combined actions by other firms in the network over time direct the focal firm into new situations. These processes can only partly be controlled and modified. The links between the micro dynamics of the industrial marketing change agents and these long-term, large-scale movements are there, although they are not always that apparent. The interdependent, long-term technological and network changes in the global biotechnology industry complex mirror many of the changes in the new company's internal marketing and distribution activities and interactions. (Figure 7.4.)

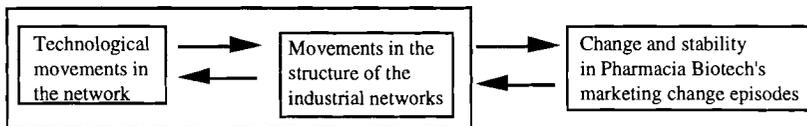


Figure 7.4. *Movements in the industrial network context and change and stability in change episodes*

The figure serves to illustrate, in a general sense, that there are connections between the long-term industrial movements and the marketing events and change episodes of Pharmacia Biotech. Movements in the global biotechnology-health care complex interact with changes in Pharmacia Biotech's internal marketing organization (see introductory descriptions of the moving industrial context in case book). The depicted slow running movements of Pharmacia Biotech's industrial context, along with the processes of the present in the Pharmacia Group, shaped the moving multidimensional and multidirectional context of the marketing change episodes of the late 80s and early 90s.

For the strategic marketing change episode, both the long-term and the medium term contextual movements matter.⁴⁰ Bringing in time spans as inherent characteristics opens

⁴⁰Braudel (1958) acknowledges the problem when putting social phenomena and events in a their long-term, historical context, moving between time perspectives: "...and having' got there, to think about everything afresh and to reconstruct everything around one: a historian could hardly not be tempted by such a prospect....(but) In fact, these different time spans which we can discern are all interdependent: it is not so much

up for new intriguing, but interesting problems. These external and internal contextual movements of the short and the long time span interact,⁴¹ and actors are positioned in their point of intersection. How do marketing change agents handle the fact that they act in different temporal contexts? This is the topic of Part III.

time which is the creation of our minds, as the way in which we break it up."(In: Braudel, "History and the Social Sciences. The Longue Durée., *Annales E.S.C.*, No. 4 (October-December), 1958. p. 48)

⁴¹Braudel (1958), describes it from the point of view of social events, a "structural social crisis", which can be compared to our focal marketing structure changes: "A structural social crisis should be equally possible to locate in time, and through it. We should be able to place it exactly, both in itself and even more in relation to the movement of associated structures. What is profoundly interesting to the historian is the way these movements cross one another, and how they interact, and how they break up...", (ibid, p. 49).

PART III
ON MARKETING CHANGE AGENCY AND STRUCTURE

8 Marketing Change Agency and Structure in a Moving Context

What is the nature of the processual relationship between marketing change agency and structure in a complex industrial setting? What does the story about the emergence and strategic change of Pharmacia Biotech indicate? Can we create any simplified, abstracted "nets" - "make the mesh finer and finer" - with which we can rationalize and master the dynamic marketing change agency-structure relationship in the world of Pharmacia Biotech?¹

Firstly, there is the problem of complexity; the world of strategic, marketing change has proven to be more complex than our "earlier mythologies about it".² The very early research questions posed were immediately replaced by more specific questions and conceptualizations of the complexity surrounding industrial marketing change processes.³ They were replaced by more specific questions and ideas concerning the interdependence between marketing change agency and moving contexts, refining the temporal, processual perspectives. The case of Pharmacia Biotech has pointed to the fact that marketing changes are created by many "intentional activities but is not an intended project".⁴ A major marketing reorganization is the collective effect of many, individual intentional actions of change agents, loosely or tightly connected to the core of whatever are defined

¹As expressed by Popper (1959). (In: Karl, R., *The Logic of Scientific Discovery*, New York: Harper and Row, 1959, p. 59)

²Returning to the assumptions made by in March (1988). (In: J.G., *Decisions and Organizations*, Oxford: Blackwell, 1988, pp. 1-21)

³The emerging issues were connected to several loosely formulated questions, e.g: How does a manufacturer over time change and adapt its distribution and marketing organization and activities to changes in the context? Why does it from time to time reorient and reorganize its marketing and distribution operations? What are the forces behind the change processes leading from one marketing and distribution system structure to another? How does a strategic marketing change project transform over time as a result of the fact that it evolves in a changing context?

⁴Giddens (1984): "Human history is created by intentional activities but is not an intended project; it persistently eludes efforts to bring it under conscious direction." (In: Giddens, A., *The Constitution of Society*, Cambridge: Polity Press, 1984, p. 27)

as "marketing" activities. It is a collective process embedded and lived in time, in the continuity and change of historical processes.

Related to the inherent contextual complexity of industrial marketing systems is the ambiguity surrounding marketing change agency. Marketing reorganizations will have elements of uncertainty for the change agents involved to act and react to. Accepting the fact that marketing redirections are collective processes with several change agents acting in interpenetrating contexts and handling several temporal dimensions will make it difficult to omit ambiguity. Change and continuity in agents' intentions, in change processes and in enacted marketing change contents is likely to be connected to situations that can be understood in more than one way; reducing, evading, or in other ways coping with ambiguities will be an inherent part of the processes. This, in turn, will be strongly connected to tensions, to interpretations of, and attentions directed to the contradictions that will always be present within an industrial marketing network.

Strategic industrial marketing changes like any actions in social systems are embedded in incessantly emerging social systems. Industrial marketing changes, the actions of industrial marketing agents, are fused with their structural circumstances, circumstances which are subject to constant change. How do change agents behave in these circumstances, i.e. how do they relate to the changing structures in which their actions are embedded?

Here, causal feedbacks between marketing change actions and the "self-transforming" structure take as starting point the three time perspectives presented in chapter 3. Firstly, the interplay related to the present, to the "functioning" of the industrial marketing network, brings up the agency-structure interaction connected to the interplay between concurrent, multidimensional and multidirectional, change processes. It takes up the theoretical problem from the point of view of the fact that the e.g. direction, goals and speed of change are contestable among multiple agents, and become the area of tensions and struggles. It is collected under the collective term "concurrence". Secondly, the action-structure interplay is brought up from the point of view of the intermediate time perspective. It is collected under the term "transition", discussing how agency is related not only to the present structure, but also to the (emerging) structures of the immediate past and future states and phases of functioning. Lastly, marketing change agency is put into the historical process, elaborating on the agency-structure problem as part of the more long-term "evolution" of the system. Marketing change agency is in this sense a problem of relating to while breaking with the long-term structural evolution of the marketing organization.

CONCURRENCE

Concurrence, contradictions and ambiguity

Interactions between marketing change agents and structure appear as processes in the near time perspective, in the present. The connections between different marketing change episodes vary over time, creating contradictions within and between the ongoing processes of organizational change.⁵ In this situation of concurrent changes, marketing change agents' interpretations of structures will be imbued with ambiguity. Processual and emerging structural contradictions will also influence change agents' allocations of attention, i.e. what structures of the context that will be enacted for change. The resulting agency-structure interactions of each of the loosely coupled change episodes will always be highly contextual. The joint effects will feed back on the processes and structures of the marketing system, creating new contradictions and new ambiguities for different change agents. Returning to figure 7.3. in the previous chapter and putting our focal marketing change episodes 1989-1993 in a shorter time perspective, contradictions emerge as a result of structures being modified concurrently by several ongoing change processes (figure 8.1.). During different phases of development, episodes connect, via the network of interactions and relationships and/or via changes in the activity and resource structure, and contradictions emerge.

As a result of multiple, concurrent change episodes, contradictions between processes will emerge. Processes connect and support or impede the development of each other. Change episodes connect during different phases of development, requiring adaptation and coordination of change processes and change contents. The change episodes result in new emerging structures; there are new organizational part-whole relations in the organizational network and tensions between new emerging structures and ongoing change actions in different parts of the context.⁶ New organizational part-whole structures require adaptations of interactions and relations between actors. Depending on positions and *network theories*,⁷ change agents will turn to and use different interactional processes and relationships to cope with the couplings between change episodes.

⁵March(1988): "Actual events in organizations appear to be much less tightly coupled (March 1978). Often there appear to be deep ambiguities in the central causal linkages among the various activities of an organization, between problems and their 'solutions', and between how managers act and how they talk....In a garbage can model, problems, solutions, and decision-makers are connected less by their causal relevance than by their simultaneity (March and Olsen 1986)". (In: March, J.G., *Decisions and Organizations*, Oxford: Blackwell, 1988, p. 13)

⁶March (1988): "Attention is focused on current problems (currently evoked goals). Action to solve current problems produces new problems with respect to other (conflicting) goals, which are then activated. But by then, the individuals or groups who share the first set of concerns are likely to be no longer active. Thus, competing objectives can be addressed sequentially, and conflicts that would threaten a coalition if they were simultaneously salient are buffered from each other.", (ibid, p.7)

⁷Johanson and Mattsson (1992) describe the industrial network in general, which can be translated to interactions between change episodes on the network level:"However, the connections between relationships may also take place exclusively via the actors at the network level. In this case they are of a subjective nature and are a matter of intentions, strategies, views, and the 'network theories' of the actors (Weick 1979)." (In:

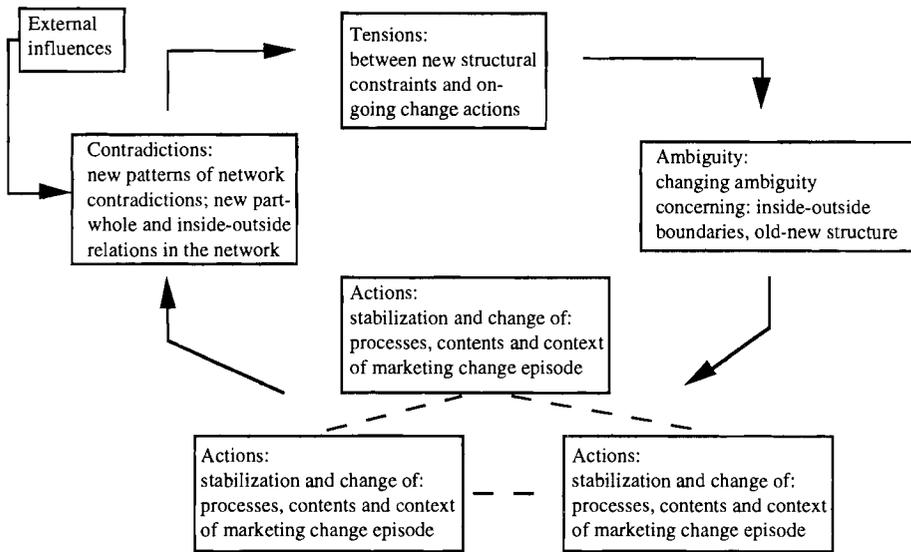


Figure 8.1. Multiple change episodes, contradictions and the agency-structure interplay

On the micro level of marketing networks, change agents of competing and complementary marketing change episodes will use motivational, interactional and structuring processes as means to cope with tensions between network theories.⁸ As a result of these interplays, actors are motivated and mobilized into interactions, i.e. they are energized to interact in new ways, they take and make new roles, the interactions are framed, and subsequently new, structured interactions and relations take shape.

In a narrow organizational perspective, the differences between network theories of marketing change agents need not be overtly contradictory; it can be a matter of change episodes being "out of phase" in the processes of implementing a new interactional structure. In the case, change agents interacting with the moving structure of the present used interactional processes to cope with the situation:⁹ they buffered from tensions by redirecting mobilization processes to other actors; they redirected mobilization and interaction to the other competing/complementary change agents and coordinated change

Johanson, J. and Mattsson, L-G., "Network positions and strategic action - an analytical framework", (In: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, 1992, p.209)

⁸Johanson and Mattsson (1992): "The strategic action may also aim to influence actor-perceived mediated connections between relationships, such as whether and to what extent actors view relationships as complementary or competing. This is a matter of influencing the 'network theories'. Such action may aim at influencing the 'network theories' of a specific actor or a specific set of actors in a network. This may imply attempts to make the 'network theories' of different actors in the network more consistent.", (ibid, p.214).

⁹Several examples of how the change agents of the after sales, distribution, regionalization (and in parts also the Biosystems) episodes used mobilization/motivation, interaction and structuring to cope with the emerging structures resulting from tensions between change episodes are provided in the case and in the analyses in chapters 4-5.

contents and processes; they engaged deeper in interactions, in framing and role-taking and role-making procedures, in order to stabilize ongoing attempts to structure interactions. Mobilizations, interactions and structuring processes will thus be both the cause of, the means to cope with, and the result of interplay between ongoing change processes at the network level. They will also be the tools by which actors influence, e.g. make more consistent, different actors' network theories, and direct actors' orientation and focus towards the same interactions and relationships.¹⁰

There will be tensions between the contents of ongoing change episodes, concerning production system activities and resources, and the new production system structures emerging as a consequence of concurrence. And there will emerge structural contradictions between the marketing network of actors and the different production-distribution-use systems that they control. It is manifested in tensions in the change episodes and ambiguities, resulting in stability and change of interaction and realization processes, of change contents, and of temporal profiles of change episodes. The timing of or the sequential order in which different changes in the activity and resource structures of the production-distribution-use systems are performed might have to be altered, adapted and coordinated between change episodes.

Change agents' allocations of attentions will be influenced by the contradictions and arising tensions. Change agents cannot attend to all such emerging tensions (and problems) in the marketing network, but they are important triggers for allocation of attentions.¹¹ It can mean that the logics and rationality of an ongoing change episode can be broken, temporarily or permanently leading to allocation of attentions to new concerns, resulting in reformulations of change processes, change contents and temporal profiles of the marketing change episodes.

There will be ambiguities about the structural and process contradictions emerging in the marketing network. Different change agents will make their own interpretations of the changes, and of the new emerging structures. Based on these allocations of attentions and ambiguities, change agents will take actions to cope with - control, avoid, alter - the contradictions of connecting, concurrent change episodes. Change agents will take actions to modify the change contents and the ongoing change processes, maybe buffer the marketing change episodes from tensions with other episodes. The interactions of

¹⁰Like, for example, when the marketing change agents after 1992 all begin to direct attentions to the characteristics of existing and future, preferred interactions with different categories of end users.

¹¹March (1988): "...time and attention are scarce resources. Neither all alternatives nor all consequences of any one of them can be known.(March and Simon 1958). Nor can organizations attend to all of their goals simultaneously.... Organizations devote more attention to activities that are failing to meet targets than they do to activities that are meeting targets (March and Simon 1958, Cyert and March 1963)...", (In: March, J.G., *Decisions and Organizations*, Oxford: Blackwell, 1988, p.3)

concurrent processes continue by taking new shapes, resulting in new attentions, ambiguities, and actions. The process has no easily defined beginning or end. *When* the concurrent change episodes connect is an important determinant of the nature of change agents' interplay with the moving structures.

The temporality of concurrent marketing change episodes

While a specific marketing change agent enacts a certain network structure, the same structure might be changed concurrently by the enactment and mobilization processes of other change agents. Within a certain period of time, the change agency-structure interplay of different change episodes reflects the way the processes interconnect. "Concurrence" encompasses moments when change episodes proceed in parallel without significant interplays, and moments when the interplay comes in focus. The timing of enacted links between change episodes partly determines the agency-structure interplay and the subsequent stability and change of the contents, processes and temporal profiles.¹²

Marketing change episodes can emerge in different groups, divisions or companies within the organization or network, and with different historical backgrounds. The episodes can involve overlapping change contents.¹³ There can be loose couplings and a certain degree of differential enactment; the agency-structure interactions and the processes of marketing actions can be dependent on whether the interlinked change agents mobilize the same/overlapping relationships and actors for structural change, or enact different relationships to change the structure:

When the change agents of the after sales, distribution, regionalization and Biosystems episodes at the outset to a large extent are mobilizing different actors in the organizational system, the structural change effects remain uncoupled. When the change agents of the Biosystems and regionalization episodes turn to the European marketing net for structural change - crossing the ongoing enactments and structural changes of the other two projects - considerable tensions begin to emerge between different structural change processes. Different change agents interpret and enact the new, emerging structure differently.

When the concurrent change episodes become interdependent there can emerge a *hierarchy* between them; during different phases, change agents interpret what can be perceived as hierarchies and power relations between different structural change processes. An implicit or explicit hierarchy between change episodes can result. Even if

¹²See for example, how the after sales change episode during different periods 1990-1993 is connected to the changes in the Biosystems, the distribution and the regionalization episodes.

¹³For example, one overlap between the after sales and the distribution episodes concerned the spare part activities, resources and responsible internal actors.

different change agents immediately would become aware of a structural change driven elsewhere in the organization or network it does not automatically have to lead to an adaptation to and enactment of this new structure. Change agents can also choose to circumvent the emerging links and power relations between change episodes:

The degree to which the change agents of the distribution and after sales episodes interpret as superior, and enact, the structural changes of the two other episodes affects the emergence of the new marketing network structure. The Biosystems organization takes over the command as main structure modifier during 1990. It is superior to the regionalization change, whose change agents have to adapt their structural change processes to the fact that a new set of companies need to be included in the emerging regionalized channel structure. The regionalization in turn, partly redirects and affects the enactments and structural change processes of the distribution and after sales episodes. The higher degree of legitimization of the former, partly effects the ongoing enactment and structural change processes of the latter. With the dissolution of the Biosystems venture, a new, implicit hierarchy between the structural change processes emerges. The distribution change agents partly manage to circumvent the links to the other change episodes by redirecting their ongoing and planned for interactions in the marketing network. The same partly applies to the after sales episode. They can circumvent the genesis of a new regionalized Biosystems structure by redirecting the interactions in their change processes. When the new regional Biosystems organization with a new channel structure of HQ-region, region-subsubsidiary, and subsidiary-customer relations is being implemented, the change agents of the distribution episode note the change, but "circumvent" the new structure by turning to new and already ongoing enactments of HQ-subsubsidiary relations.

Marketing change projects can become *synchronized* as regards structural orientations. The synchronized structural orientation and speed of different changes can allow e.g. a new planning orientation towards a more distant future. The synchronization can be driven by attentions being directed towards the same interactions and relationships in the organizational network, and change agents adapting their "network theories":

During 1992 and onwards, all the major marketing change projects become more *synchronized* as regards structural orientations. While all marketing projects now are firmly positioned in the new regionalized, key account oriented marketing channel structure that is emerging, they are also leaving the phase of "panic responses" to changes in the present, some of which have been reorienting the change agents towards an "old" structure on the way to being abandoned. The key account and regionalization episode becomes supportive in relation to the distribution episode's efforts to establish direct distribution contacts with customers, and with the after sales episode's attempts to redirect local service units towards change interactions with customers in order to increase sales of long-term service support contracts. There is one common goal in changed interactions with customers.

The temporality of connections between change episodes thus involves aspects of timing, and aspects of lead and lag effects of the interplay.¹⁴ The timing of singular and sets of actions in the interactional and realization processes, and in the implementation of change contents will have effects on the what, when and how of actions in other change episodes. In a longer time span, timing concerns the temporal relations of the distribution of sets of actions in relation to the distribution of other sets of actions.¹⁵ Loose couplings between episodes will lead to the fact that certain changes in one episode will affect another change episode earlier (lead effects) than other changes (lag effects). The patterns of these mutual lead and lag effects between change episodes will be dependent both on the way the actors are related in the organization and on the way they are connected via the activities and resources of the production system. Lead effects on the network level can result in interactional adaptations, and spread to the production system with varying effects:

When the Biosystems venture breaks into the after sales episode, the latter's change agent reacts by interacting with actors in the other Biosystems companies. It stops the change process, but the adaptations spread with somewhat reduced effects to the activities and resources of the production system (coordination of different service personnel's activities).

The knowledge about the structural effects of other ongoing change processes in the network will be limited, and the awareness of concurrent changes will appear with different lead and lag effects for different actors.¹⁶ Interactions, and changed interactions, will be the way in which change agents' images and knowledge of the emerging network structure, and hence the agency-structure interplay, are altered.¹⁷ Interactions become the tool to increase knowledge about the moving context, and handle

¹⁴This connects to the suggestion made by Hernes (1976) that a theory of structural change should meet a desiderata which includes time and historical accounting systems that explain the lead and lag effects of changes in micro and macroorganizational characteristics. (In: Hernes, G., "Structural Change in Social Processes", *American Journal of Sociology*, Vol. 82, pp. 513-545 November 1976)

¹⁵In a similar vein, but from a consumption perspective, Grönmo, S. and Ölander, F.(1991) suggest: "A quick analysis of what could be understood by the 'timing of consumption' seems to indicate that at least three meanings can be attached to this concept: a) The placement in time of an individual act of purchase or consumption. b) The distribution over time of a stream of purchase or consumption acts. c) Changes in the pattern of purchases or consumption over time."(Grönmo, S. and Ölander, F., "Micro-macro relationships in the study of time and consumption", in: Antonides, G., Arts, W. and van Raaij, W.F.(eds.), *The Consumption of Time and the Timing of Consumption - Toward a New Behavioral and Socio-Economics*, Amsterdam: North-Holland, 1991, p.229)

¹⁶It can be related to Giddens' (1984) statement: "Human knowledgeability is always bounded. The flow of action continually produces consequences which are unintended by actors, and these unintended consequences also may form unacknowledged conditions of action in a feedback fashion." (In: Giddens, A., *The Constitution of Society*, Cambridge: Polity Press, 1984, p. 27)

¹⁷Boulding, K.E.(1964) states: "Social systems are what I call "image-directed", that is, they are systems in which the knowledge of the systems themselves is a significant part of the system's own dynamics and in which, therefore, the knowledge about the system changes the system."(Boulding, K.E., "The place of the image in the dynamics of society", In: Zollschan, G.K. and Hirsch, W. (eds.), *Explorations in Social Change*, Houghton Mifflin, Boston, 1964, p. 7)

the effect of temporality, the lead and lag effects resulting from the temporal distribution of sets of connected actions in the network.

Choice, decision and action "rationality" in industrial marketing contexts will partly be related to the "rationalities" for handling concurrence. It means handling, over time, partly competing partly complementary and changing goals, intentions and change rationalities. The move towards an efficient economic and effective "channel" structure in the change process of one marketing change episode will create tensions and adaptations in relation to other episodes elsewhere in the context, and feeding back on the change process. Buffering from the rationalities of other change processes in the context can be temporal. Rationality can lie in synchronization; mutually adapting ongoing structural change processes, connecting and adapting the goals, intentions, actions and change rationalities of concurrent processes.

TRANSITION

Transitions, contradictions and ambiguity

Marketing networks go through periods of apparent transition, leaving processes of structural change of certain characteristics, entering a period of a new type of structural change.¹⁸ Strategic marketing transitions, leaving the immediate past, entering the processes of the present while moving towards a future state, is a process without an ending. Adaptations and modifications of marketing change episodes reflect not only actions to cope with concurrent process; they concern also the problem of marketing system transition. Contents and processes of marketing change episodes and change agency-structure interactions reflect actions to break with, while building on and using knowledge about the immediate preceding history. The heritage of the past phases of marketing functioning is encoded in the actions and consciousness transmitted to the future,¹⁹ yet history is clearly and notoriously ambiguous."²⁰

¹⁸In his discussion of structural models of social change, Hernes (1976) provides four basic possibilities for change and stability, i.e. concepts useful in understanding organizational persistence and transformation: "simple reproduction", "extended reproduction", "transition" and "transformation". The discussion is on an aggregated macro level, where transformation denotes a higher degree of change, affecting all main variables and structures. Transition denotes another degree of change, not involving what Hernes denotes the "process structure", the forces producing change in a population. The term "transition" is used here as an indication that when leaving the immediate past, handling the present while moving towards the immediate future (here: 1986-89, 1989-1993, 1993-94), there will always be some remaining, stable and reproduced, interactions, norms, and activity and resource structures that are built on. In the long run, there is likely to be a transformation of the marketing network, as most structural parameters are changed. (See also: Aldrich, H. E., *Organizations and Environments*, Englewood Cliffs: Prentice-Hall, 1979, chapter 8)

¹⁹Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, p. 228

²⁰March, J.G., *Decisions and Organizations*, Oxford: Blackwell, 1988, p. 13

Marketing actions and the way marketing change agents use and enact and subsequently change the marketing organization structures, will always be related to contradictions between the previous structure and the processes of the present leading the way towards a new structure.²¹ Perceived ambiguities about structure can concern interpretations about the strength of the previous structure and the ongoing processes of structural change. Different actors in an organizational network (sales divisions, service divisions, logistics divisions, production organizations, R&D units, etc.) will, at least in parts, have different histories. This include relations to the immediate past. Contradictions emerge during transitions when loosely coupled actors break with different pasts, moving towards different futures, with partly different goals and intentions. The remnants of the immediate, preceding state of functioning of the marketing system will be different, and will be interpreted and enacted differently by the actors. Subsequently, they will also redirect in different ways the emerging structures of the immediate past and move differently towards the preferred future state of functioning.

Breaking with and building on the emerging structures of prior change processes

Every industrial marketing change episode reflects its previous history and contains seeds of the future. The transition and "social change" of a marketing organization can be viewed as the process when a set of actors leave the preceding state of functioning, acting in the concurrent processes of the present while moving towards the next, future state of functioning. These are different states of the same continuously transforming system(s), and with several feedbacks between the actions and structures of the past, the present and the future (figure 8.2.).²²

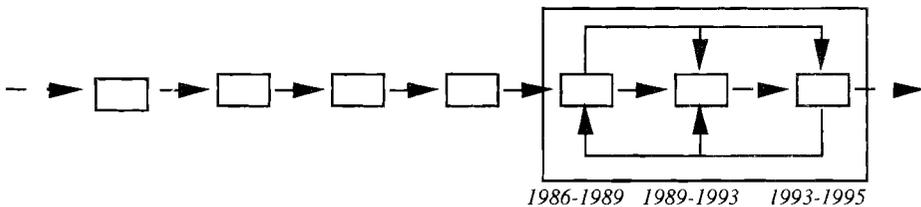


Figure 8.2. Seven states of functioning and a marketing system transition. (Adopted from the story of Pharmacia Biotech 1959-1995, including the transition from 1986-89 (the LKB-BTG merger) to 1989-93 (period of concurrent marketing change episodes), moving towards the new functioning of the marketing system 1993-1995 (entering the stabilization of marketing change processes)).

²¹Benson (1977): "There is in any social setting a contradiction between ongoing production and the previously established social formation. The production of new patterns must always go against these established interests." (In: Benson, K.J., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, March 1977, p. 5)

²²The figure builds on the discussion in Sztompka (1993) and on the structure of the historical case study. The transition and "social change" of Pharmacia Biotech's marketing organization is linked to a descriptive structure of seven states (1959-67, 1967-74, 1974-82, 1982-86, 1986-89, 1989-93, 1993-94, excluding the prologue 1941-59), referring to seven different characteristics of functioning, which in turn reflect different events and different change agent-structure orientations. (See Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, p. 227)

Every phase of the historical sequence has its own marketing change agents, marketing organization structure and change agent-structure interactions affecting the emergence of the company and its marketing operations. The change episodes and its agency-structure interactions of each phase differ and vary as concerns orientations towards the past, the present and the future. The transition from one structure to the next will be linked to contradictions between different time orientations (time horizons and time perspectives) and different agency-structure orientations. Tensions grow out of this situation; the new structural patterns produced in the agency-structure interactions go against some established interests in the system.²³

Marketing organization transitions are about building on the emerging structures and ongoing processes of the immediate past while breaking with parts of them when acting in the present.

The transition involves reorientations of interactions and reorganizations of activity and resource structures. Hence, a transition can involve:

- 1.Redirections of attentions to new interactions
- 2.From attention directed at resource and overall actor structures to internal interactions and activity links
- 3.Change of change agents
- 4.For single change agents both direct, internally controlled, and indirect redirections of attentions
- 5.Shifts in attentions and handling of structural ambiguities resulting from shifting internal contradictions
- 6.Shifts in temporal orientations and temporal profiles of the strategic change episodes

1.Redirections of attentions to new interactions:

In the period around 1989, attentions and awareness in several divisions (in the after sales and distribution units) are redirected from the horizontal merger of organizational units and resources to the internal vertical contacts, interactions and activity links. The process of stable heterogenization of local marketing activities and interactions, and loose couplings between vertically connected units are partly broken by a redirection of attentions; there is an increased consciousness about the lack of vertical interactions and information exchange.

2.From attention to resource and overall actor structures to internal interactions and activity links:

The real break with the stable processes of change 1986-89 takes off around 1991, as a consequence of several change agents redirecting their interactions, reorganizing their particular activity and resource structures. The break comes also as a consequence of the fact that attentions are directed towards handling the contradictions and ambiguities resulting from the interactions between the many

²³Benson, K.J., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, March 1977, p. 5

concurrent change episodes. Time orientations and time perspectives are narrowed down to the near present (by some defined as "panic responses").

3. Change of change agents:

There is a change of change agents during BTG's transition; project groups for specific merger projects are replaced by specific strategic change groups built from the new, merged LKB-BTG divisions and units. During the two periods 1986-1989 and 1989-1993, there are also important changes of executive managers in Pharmacia and in Pharmacia Biotech (1989 and 1990). In the latter case, these changes come to have important effects on the start and on the resumption of marketing change processes.

4. For single change agents both direct, internally controlled, and indirect redirections of attentions:

For single change agents, the break with the preceding period, 1986-89, is both direct and indirect; other change agents redirections of interactions partly drive the process. The interplay of concurrent change episodes is a result of this.

5. Shifts in attentions and handling of structural ambiguities resulting from shifting internal contradictions:

In the period from 1992 and onwards, the breaking of emerging structures and interactions (the dissolution of Biosystems) becomes a motor for definitely breaking from the processes of structural change 1986-89 and 1989-1991. The ambiguities about internal organizational contradictions are partly dissolved as attentions can be directed to new internal interactions and activity structures (the customer relations). The uncoupling of organizational units and contacts becomes one driving force for establishing new interactions and breaking with the emerging structure of the immediate past period.

6. Shifts in temporal orientations and temporal profiles of the strategic change episodes:

In several cases, time orientations change during the marketing changes processes from a concentration on the immediate present to more future oriented visions about the goals for the continuing, structural change processes.

Judging from the case, a transition from one state to another is a collective process. As a result, it will involve the interaction of many of the changes described. It will be endowed with considerable tensions and ambiguity due to the fact that the actions will emerge in partly different organizational contexts. Links and coordination between actions to break with the immediate past have to be established.

Transitions and coordination

While the interactions between concurrent change episodes can reduce the speed of change but draw attentions away from the past to the narrow present, the speed of the transition can increase when attentions are coordinated, directed towards the same organizational focus. (In Pharmacia Biotech, the problem of coordination successively became more complex. The coordination between BTG and P-L Biochemicals from 1982 and onwards, between BTG and LKB in the next transition from 1986, and between the BTG units and the six other companies of Pharmacia Biosystems from 1989, illustrates an increasing complexity.)

During transitions there can emerge tensions due to the fact that change agents are oriented towards different parts of the context for change, and are in different phases of the change processes. There are differences as concerns actors' sticking with the past. An important aspect of coordination during transitions becomes the handling of the different "stable, natural processes of change" in different part of the context; handling - stimulating or inhibiting - the ongoing processes of structural orientation and change. One aspect of coordination concerns the cross-linking of different ongoing change processes in order to stimulate amplification and reduce inhibiting tensions and complications.²⁴ (The problems of coordination in Pharmacia Biotech following the reorganizations 1982, 1986 and 1989, are reflected in differences in the way the cross-linking of ongoing change processes - with agents differently related to structures of the past, the present and the future - become manifested in the merger and coordination processes.)

The cross-linking and coordination of ongoing marketing change processes can result in predominantly positive amplifications when several processes are to break with parts of the emergent, present state of functioning:

Coordination processes 1982-1986 (predominantly positive amplification)

When the natural, ongoing processes of structural change in BTG and P-L Biochemicals are joined, the synchronization of the ongoing structural changes (i.e dominant change agent-channel structure orientations) becomes predominantly amplifying. BTG is in the early stage of building up its own R&D and production activities and resources in molecular biology, while P-L Biochemicals is only in the early phase of building up an international marketing organization. The fusion process of the two companies becomes mainly mutually supportive for the two companies, despite minor problems of joining the R&D and the distribution activities. None of the companies has to reorient towards an

²⁴March (1981) discusses it as an important aspect of leadership in changing organizations: "Such a view of managing organizations assumes that the effectiveness of leadership often depends on being able to time small interventions so that the force of natural organizational processes amplifies the interventions." (March, J., "Footnotes to Organizational Change", *Administrative Science Quarterly*, 26, 1981, p. 575. Also in: March, J.G., *Decisions and Organizations*, Oxford: Blackwell, 1988, chapter 8)

internal, historical operational structure left long before. The cross-linking of the change processes becomes amplifying in the sense that change agents in the two companies are oriented much faster towards a planned business structure (a combination of molecular biology fine chemicals with a whole range of purification products) which, without the merger, probably would have taken much longer to reach.

The cross-linking of several processes can become partly inhibiting when moving to a new state of marketing functioning:

Coordination processes 1986-1989 (inhibiting, cross-linked processes of structural change)

In contrast to the preceding period, the cross-linking of ongoing, stable processes of structural change in BTG and LKB becomes less amplifying. Many ongoing agency-structure change orientations in LKB come to a stop. For example, the ongoing, newly started (1985) process of implementing a future, regionalized marketing organization structure in Europe in LKB comes to a stop. The ruling Pharmacia marketing subsidiary structure is to be adapted to. It is not until 1991 that a reformulated regionalization process takes off again. Other processes in LKB are inhibited in the same way; LKB's orientation towards the clinical customers and the process of building alliances for a move into this area (e.g. through Sebia) also comes to a stop. It can also be argued that some of BTG's started processes of orienting towards molecular biology customers (academy and industry) are partly inhibited by the problematic fusion, and reorientation and concentration on the internal BTG-LKB structure. For LKB, the merger process pulls the marketing agents back to an organizational and operational structure left some years before, as the ruling Pharmacia marketing agency-structure orientations come to dominate the processes. The companies do not manage to synchronize and amplify the processes of change so that the positive effects of LKB's future orientations stimulate BTG's marketing structure development.

There can be periods when the lack of coordination partly interrupts one or several of the interlinked processes:

Coordination processes 1989-1992 (interrupted cross-linking and no amplification of ongoing structural change processes)

Seen from a Biosystems perspective, the cross-linking of the structural change processes in Kabi and Pharmacia does not result in any significant amplification of ongoing changes in the seven Biosystems companies. On the contrary, the agency-structure orientations in the biotech, the diagnostics and the medical devices organizations are quite different and very difficult to synchronize so that amplifying effects are achieved. While the biotech units are just turning to the marketing organizations for a change towards a future, more efficient marketing operational structure, the diagnostics units in parts remain with the structures of Pharmacia's past. Pharmacia Deltec presents still another orientation, quite different from the other two. The different, ongoing marketing agency-

structure orientations during the creation of Biosystems are utterly difficult to synchronize. Despite attempts to coordinate and develop new joint management policies, the intervention in and cross-linking of the ongoing structural change processes in the different Biosystems companies prove too difficult a task.

Every change episode has contents and processes reflecting the change agent's orientations towards marketing organization structures of the immediate past, present and future. The transitions from one structural stage to the next is a function of the way several different agency-structure orientations are coordinated. The breaking with parts of the historical heritage depends on the way a number of different structural change processes are interlinked, which change agent's structural orientation ("network theory") that comes to dominate, and in what way it comes to stimulate or inhibit other "natural" processes of structural change and agency-structure orientations.

Social time enters the coordination processes during transitions. Change agents' different structural orientations and the change agency-structure interplay, are paired with differences in temporal orientations.²⁵ Coordination between sets of marketing change processes can be a way of overcoming inhibiting tensions due to the fact that some change agents are preoccupied with the near, present functioning of the system ("reflection"), some with the near or distant future state of the marketing system ("foresight") and others looking back into the past ("hindsight") when engaged in the processes of changing the marketing system.²⁶ Coordinated mobilization processes, interactions, and stable contacts between actors/change agents can be a way of not only adapting "network theories", but also mutually adapting "temporal theories", i.e time perspectives and time horizons, during transitions:

Signs of temporal coordination can be observed in Pharmacia Biotech's marketing change episodes after 1993. While some change agents have been stuck with "panic responses" to changes in the near present ("reflection"), increased coordination results in more change processes being directed towards a more balanced orientation towards the present and the future in the change processes. The dissolution of the Biosystems venture is an important trigger.

²⁵See chapter 3 and the section on social time. We return to the assumption that: "People are time travellers; they take different time perspectives to reflect on their past, present and future behavior. These perspectives are used in planning new behaviors, in anticipating new situations that one may encounter in the future. These reflections are necessary in evaluating past behaviors, and in planning future behaviors on the basis of the evaluations of the past." (Pieters, R. and Verplanken, B. "Changing our mind about behavior", In: Antonides, G., Arts, W. and van Raaij, W.F.(eds.), *The Consumption of Time and the Timing of Consumption - Toward a New Behavioral and Socio-Economics*, Amsterdam: North-Holland, 1991, p.63).

²⁶Ibid, p.60

Amplifying the interactions between change episodes during transitions can involve mutual adaptations of the micro elements of change episodes (timing and sequencing of interaction and realization elements and various change contents). Coordination can also involve visions about future states of the marketing systems. (For example, after 1992, more detailed corporate plans about future steps in the marketing system transitions (covering 2-4 years) are sent out in the organization of Pharmacia Biotech, describing goals and timing of implementations.)

EVOLUTION

Evolution, contradictions and ambiguity

The interplay between marketing change agents and the moving structure will always reflect aspects of handling remnants of the earlier functioning of the marketing network. Action-structure interactions will reflect elements of handling not only concurrence and system transition, but also the long-term historical evolution of the system. Strategic marketing reorganizations will be concerned with continuity and accumulation, yes even inertia, of the past, encoded in the interactions and relationships between actors, and in the technologies and structures of the emerging production systems.²⁷ In addition, different change agents' modes for enacting and changing the structure of their context, will vary as to what remnants of the earlier functioning of the marketing system that will be encoded in this agency-structure interplay. Different marketing change episodes reflect breaks with *different historical remnants* established during *different phases* in the sequential patterns - transitions - of history.

During the course of a marketing reorganization, groups and divisions in the marketing organization, and various change agents will interact with the structure, partly by breaking with different remnants of the past. While a service division might have to break with traditions whose structures have been set during a certain period of time, a product sales division might be handling stable structures set much earlier or later in time.

During a major reorganization, part of the ambiguities emerging between episodes can originate in the fact that change agents relate differently to structures and the histories of these structures. Some marketing change episodes are concerned with breaking with, while adapting, structures set relatively late:

²⁷Sztompka (1993) states concerning social change processes in general: "One may say that remnants of the earlier functioning of society are encoded in the natural environment and passed on to the next phases of functioning...Thus the heritage of the past phases of social functioning is encoded in social consciousness and transmitted to the future", and hence, "As a result, the process is endowed with considerable continuity and cumulateness, and we witness the emergence of sequential patterns of history." (In: Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, pp. 228-229)

Pharmacia Biotech's after sales service episode's agency-structure interactions reflect attempts to break with the cost center based interactive norms and activity structures set around 1975. The residues of praxis for the technical after sales activities and interactions, established when the first integrated separation product instruments are sold, are a stable heritage of the past. It is difficult to break with, when the new After Sales Division starts mobilizing internal marketing and service units for change. The inertia experienced results in several revisions of the change contents and of the change processes, e.g. redirecting the change effort towards internal actors more sympathetic to breaking with the historical traditions.

In other episodes, actors have to interact with structures, traditions and norms set very early in the emergence of the marketing organization:

The distribution change episode's change agent is concerned with activity structures and channel interactions set even before the official start of the new company in 1959. The new, emerging capital management division enacts, while attempting to change a pharmaceutical distribution structure and tradition set almost since the origin of Pharmacia in 1911; for example, storing products very near the customers, and at different levels (production, central warehouse, local marketing subsidiary warehouses, customers). Thus, agency-structure interactions and adaptations of change processes and change contents reflect in one way attempts to break with an old Pharmacia tradition (rather than a Pharmacia Biotech tradition).

The historical remnants that have to be altered in the interaction between change agents and structures can also involve elements that belong to historical processes before the actual birth of a focal, formal company. Hence, a marketing change episode can openly involve breaking with and relating to stable historical processes of change that are part of a wider historical and structural context:

The regionalization change episode reflects a break with the continuity and cumulateness of a powerful historical, and still ongoing process: the internationalization and internal expansion through country based marketing subsidiaries, a strategy and process set in the larger Pharmacia Corporation in the 1950s, succeeding the period of export driven, sales agent based, internationalization 1911-1950. The established interactive norms, actor structure (including internal power structures) and the division of marketing activities in the marketing organization become strong residues of earlier functioning. The inertia experienced by the change agents of the project when trying to mobilize actors into redefining themselves, creating new actor constellations and interactions, results from the difficulties to break with this long, historical process.

To varying extents, marketing change episodes will also be concerned with historical remnants in the structures of the network, of the technologies, activities and resources of

the production system, and also of institutionalized ideas about structures and structural interdependencies in the marketing organization:

The Biosystems venture reflects in one perspective the difficulties to break with the long history of Pharmacia's "synergistic" strategy, starting early but firmly set in the late 1970s. The inertia in the change episode - the Biosystems management's difficulties to mobilize a new constellation of seven companies into a whole - reflects both the difficulties to implement and enact an operational structure with no history, while breaking with the long history of strong bonds between Pharmacia's pharmaceutical, diagnostics and biotech companies.

Building on the case, a major marketing reorganization will be a collective breaking with structures set in the historical evolution of the company and network. Different change agents enact different structures of the context to break with continuity and cumulateness set during different periods of this evolutionary process. A major marketing reorganization will in this perspective entail contradictions between the ongoing processes of structural change and the previously, historically established formations.²⁸ The ambiguity of this contradiction concerns the breaking with the continuity of ongoing processes reproducing the historical structure of the marketing system, while concurrently building the new system structure on established structures.

Breaking with historical interactive norms

A marketing change episode contains elements reflecting the historical, past phases of the company and the system in which it is embedded. Marketing change episodes reflect temporally embedded long-term historical processes of not only one, but several moving, industrial contexts:

On one level, the change episodes in Pharmacia Biotech reflect Pharmacia's long-term position changes in the structuring of the Swedish (and the global) pharmaceutical industry and the global biotechnology network. The heritage of the past functioning and increased concentration of the Swedish pharmaceutical industry come to a peak in 1989, which in turn results in the Biosystems venture and in the structural orientation and reorientation of the change agents in Pharmacia Biotech's marketing change episodes.

The contents and processes of marketing change episodes will reflect inertia, perhaps difficulties, of finally breaking with some internal and external technological and network interdependencies built up over decades.

²⁸Benson, K.J., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, March 1977, p. 5

A certain aspect of marketing change episodes' embeddedness in historical processes is particularly important for understanding the interaction between the episodes and the historical process, "between the instant of change and the longer time span".²⁹ It concerns what can be summed up with the multifaceted term "norms".³⁰

Central elements which can be assumed to endow the long-term industrial marketing change processes with considerable continuity can be linked to this general, collective term. The historical marketing traditions of an emerging company can involve stable and often slowly changing normative elements. These can encompass expectations concerning interactions tied to certain network positions and roles. It can concern interpretations of obligations, rules, duties and expectations built from many years of past interactions and relationships. Stores of normative information from past interactions help to create expectations about rights and duties in certain situations. These norms are generated and regenerated over time and constitute the "institutional" aspects of long-term interactions and relationships in industrial marketing channels.³¹

The introduction of normative contents as an important aspect of the cumulateness and continuity of long-term historical marketing processes also connects us with the degree of change. As suggested above, a major marketing reorganization can involve several marketing change episodes, maybe leading to a peak of change in the history of the marketing system. It can be a peak of change in that many established structures are uprooted and replaced by new emerging structural principles. The peak of change can include a transformation of underlying ideologies, ideas and expectations about rights and duties in the marketing organization. The agency-structure interactions can come to touch the very norms of marketing functioning set in historical processes since the birth of a company, corporation or network. On a meta-level, a major marketing reorganization can become a peak of change in that the dominating underlying modes or principles of changing in the marketing organization might have to be changed. Hence, there can be a change in the mode of changing.

The efforts that can be needed for a major reorientation of a marketing organization can partly be explained by the efforts needed to break with and transform marketing norms, ideas and assumptions accumulating in the long-term historical evolution of the marketing organization. The agency-structure interaction, from the perspective of the interplay

²⁹Braudel, "History and the Social Sciences. The Longue Durée., *Annales E.S.C.*, No. 4 (October-December), pp. 725-753, 1958

³⁰We return to and continue to elaborate on the brief comments on "norms", given in chapter 3.

³¹Building on Turner, (1988), norms can thus be approached with a more dynamic perspective ("normalization") emphasizing its transformation over time.(In: Turner, J. H., *A Theory of Social Interaction*, Stanford: Stanford University Press, 1988, pp.156-161)

between the marketing change episodes and the long-term historical structuration, reflects efforts to redirect these historical processes. The "norms" that have to be changed are embedded in the internal functioning, in the activities, and in the interactions and relationships. They are also embedded within the actors, in the systems of ideas and beliefs governing the marketing actions of individuals and groups. It can be assumed that the fact that some marketing changes are perceived as a peak of change in the historical evolution of a marketing organization, are connected to the fact that they break with some stable, accumulated norms and ideas.

What are the implications for industrial marketing changes of this? Judging from the case, it can be argued that a marketing reorganization encompasses elements of changing also normative aspects of how marketing activities are performed, resources are employed and actors interact in the marketing organization. The continuity of interactions and relationships in the industrial marketing organization is founded on the institutionalization of rules and ideas, i.e various types of norms or normative clusters which have to be altered in the process. A major marketing change involves normative contents, norms which can only temporarily be avoided. It becomes a matter of legitimizing and spreading in the organization a new marketing innovation, breaking through a prevailing normative structure emerging in long-term historical processes.

Drawing from the case and relating to theory, breaking with established prevailing norms in the marketing organization and interactions involve several facets:³²

1. Interaction as a foundation for breaking historical norms for interaction
2. Ambiguity as driving force for changing norms for interactions
3. Legitimization of new interaction norms via visibility
4. Breaking actors' resistance to change agent's modification of norms
5. Amplifying normative change by linking numerous, piecemeal norm changes

1. Interaction as a foundation for breaking historical norms for interaction:

In order to change actors' stored information and normative conceptions which they draw upon when interacting in a marketing organization, change agents have to encounter and interact with their channel counterparts. Interaction is the foundation for changing the norms governing the interactions. As stated by Turner, interactional processes of role-taking and role-making (see also chapter 4) can contribute to create interactional norms.³³

³²This discussion draws on insights from the case story and on Turner's (1988) discussions on norms and normalization (pp.156-161, 186-187). From Turner we have collected the basic argument that norms are the joint outcome of cognitive processes and motivational, interactional and structuring processes (p.160). Factors 1 and 4 in the list have strong links to Turner's discussion, (ibid)

³³Turner (1988) states: "Role-making and taking also contribute to normalizing in several aspects".(ibid, p.187). The argument is that actors communicate to each other during the process encouraging mutual agreements over rights and duties, they achieve understanding of each other perspectives, and they negotiate

Transferred to the case, marketing change agents' and their counterparts' processes of role-taking and role-making is one origin of breaking with established norms and introducing new interaction norms:

In all marketing change projects in Pharmacia Biotech in the 1990s, the direct interactions and mobilizations of channel actors become the major starting points for disseminating new marketing ideas. When e.g. the after sales episode's task force group after the first steps of mobilizing the market subsidiaries start processes of establishing new roles (mutual processes of "role-taking" and "role-making" are started from the first joint planning meeting in Copenhagen), a number of established expectations about actor roles are both clarified, questioned and successively altered. The central division achieves a better understanding of what the local marketing subsidiaries have been expecting from them (but have not achieved) and vice versa. This becomes an important platform for the central divisional unit to start communicating and negotiating new rights and duties, new norms, in the interactions between the organizational units.

Interactions and mobilizations of channel actors can become the starting point for disseminating new ideas about the way actors should be organized and interact in the future.

2. Ambiguity as driving force for changing norms for interactions:

When actors experience difficulties to draw upon established, historical knowledge about channel interactions, when expectations about behaviour are not met, there emerges confusion and ambiguity, resulting from perceived contradictions between the old and the new norms.³⁴ This, in turn, is the origin of intensified interactions and changed norms, given that the new interactive attempts by change agents cannot be rejected. Ambiguity is an important driving force for leading actors into interaction which transforms the very norms for how they should interact:

During the transition period when the new regionalized marketing organization is to be implemented in Pharmacia Biotech, old norms concerning expected rights and duties in the channel cannot be employed. After some critical periods, the new vertical channel actors are forced into more intense interactions in order to establish new expectations. The ambiguity about the ruling actor structure, e.g. during 1991, forces several of the marketing change agents to intensified interactions and processes of role-taking and role-making in order to avoid or reduce the ambiguity and concurrently clarify what the emerging actors in the new vertical marketing channel (HQ, region, (sub-region),

during the process. Actors negotiate concerning form, etc. of their interactions, providing information about interactive rights and duties.

³⁴Several of the change episodes in the case can be connected to Turner's (1988) idea that: "Only when actors cannot agree on rights and duties, schemata, and organizing procedures does interaction become stressful and difficult to structure." (ibid, p. 160)

sales office, customer) can expect from each other and what their duties are in the new channel structure emerging.

In Pharmacia Biotech's change episodes, ambiguity about how the new actor structure should be interpreted starts interactional processes in which communication exchange is intensified. This allows the actors of the new vertical marketing channel to start role-taking and role-making processes that questions some of the old interactive norms, developed in different channel structure.

3. Legitimization of new interaction norms via visibility:

An important driving force and method for disseminating new ideas about interactions and divisions of marketing work is to make it visible in the organization and network. Change agents can direct attentions to certain parts of the context, serving as role model for future changes:

In all marketing change episodes in Pharmacia Biotech 1989-1993, change agents after some time, activate a chosen number of counterparts/subsidiaries which have been fast to adopt new ideas about marketing procedures and internal interactions. (See e.g. how the after sales episodes uses this approach during the change process.) This serves to make the changes - as manifested in open accounts about tensions between old and new norms for channel interactions - openly visible to other, less receptive actors in the channel.

By communicating to unreceptive actors during mobilization and interaction, new expected rights and duties between marketing actors in other parts of the organization, change agents are able to make visible unreceptive actors' established norms and new ideas about future norms that preferably should guide the interactions.

4. Breaking actors' resistance to change agent's modification of norms:

Actors' interpretations of norms for interactions are built up in historical processes covering long time periods. As argued by Turner, actors can resist the change by *filtering* attempts to introduce changes which will alter existing norms.³⁵ Breaking this filtering can be the first step towards introduction of similar interpretations of (new) norms:

In all marketing change episodes in the Pharmacia Biotech, attempts by task force groups to introduce changes (e.g concerning aspects of the interactions between subsidiaries and customers) are met by various types of open and hidden resistance by the local market subsidiaries. They interpret the new marketing ideas in e.g the after sales, distribution and regionalization episodes according to established

³⁵Turner (1988), *ibid*, pp. 159.

norms for how actors in the channel have always been behaving in relation to each other. The local actors interpret the central mobilization efforts by using history. The problem is that each local subsidiary has been allowed to develop its own local structure and mode of interacting with the central units in matters concerning physical distribution, after sales, and more. There emerges a need not only to break this filtering, based on many local "histories", but also to standardize the involved actors' interpretations of the new interaction norms. For the after sales change agent this involves breaking the non-standardized views among the subsidiaries about who should be locally responsible and who should interact with the central units concerning distribution, after sales, etc.

Historical stores of information about who should interact with who, and what channel actors can expect from each other, are questioned and altered when breaking with historical norms. This takes time. In Pharmacia Biotech's after sales change episode, several joint subsidiary meetings, direct contacts between task force group and local subsidiary groups, and both formalized and informal specifications about expected rights and duties in the new channel actor structure, eventually lead to the emergence of new norms. The marketing subsidiaries' ways of using history and selecting information when mobilized differ between subsidiaries (for example, it can be observed in the way the task force group has to work with different subsidiaries when trying to implement new modes of selling and looking upon service contract sales).

5. Amplifying normative change by linking numerous, piecemeal norm changes:

When the initial resistance to a change of normative structure has been overcome, numerous small, piecemeal modifications of existing marketing norms will be interconnected, amplifying the process of normative change:

When the change agents of the different marketing change episodes in Pharmacia Biotech have overcome the first period of internal resistance, the many changes become embedded in a new interlinked normative cluster. The new focus on intensified internal interactions, including interactions with customers, and internal efficiency based on a new organizational structure, new activity patterns and more efficient use of remaining, reduced channel resources, comes to include new emerging norms for internal interactions, concerning cost reporting, information exchange, communication, and more. The emergence of these new norms amplifies also as a consequence of the fact that the company is able to disconnect from actors with "old" or diverting norms for interactions (e.g. cost center based operations for services), i.e. from the other companies of the Biosystems group.

A major marketing reorganization involves breaking with norms of the past; norms for interactive, exchange behaviour in the marketing organization need to be altered. It can

mean that a new organizational "marketing innovation" (e.g. a completely new organization and system for key account management) has to be introduced and disseminated in the organization. The interactive norms among individuals and groups, the stored historical information about expected rights and duties in the interaction and exchange, have to be changed. Judging from the case, the problem of breaking with historical norms is partly solved by intensified mobilization, interaction and structuring of new interactions. To change the learned norms and thinking about interactions, actors need to be mobilized and motivated into even more intense contacts so that old norms can be confronted with new ones.

Breaking with history; changing the mode of changing

Marketing change processes have no clearcut beginning and end. Setting the boundaries on the historical, evolutionary processes will always have elements of arbitrariness. Marketing networks are in the constant state of emerging. However, the mode of changing will not be the same over time. While marketing strategies, marketing actors, change agents and the structures and norms of the context will change over time, a major marketing reorganization entails elements pointing towards a change in the traditions for changing. A break with the historical evolution of the marketing network can entail such elements of metachange.³⁶

In Pharmacia Biotech, the marketing changes of the 1990s can be interpreted as a break also with the traditional ways of changing the marketing organization. Firstly, it is the very first time that the marketing operations (in a wide sense) are positioned at the core and in the frontline for the biotech company's overall strategic change process. Secondly, the company deliberately shifts the very driving force for changing the marketing activities. From 1992, the history of incremental and major marketing changes, i.e. adaptations to internal changes "from above" (e.g. organizational changes by the Pharmacia management), is openly replaced by Pharmacia Biotech-organized, and external, customer driven marketing changes. Thirdly, after 1993, there are signs in the organization that the internal norms and ideas about changing are changing. That is, the idea of marketing reorganizations as single upheavals seems to be slowly complemented with a view where the continuity of ongoing, long-term marketing change processes comes in focus. It is becoming a matter of stabilizing - attempting to create continuity in - the ongoing processes of structural change.

³⁶Sztompka (1993) discusses briefly what he calls "the becoming of social becoming": "...social becoming changes its mode in the course of history. We enter here the domain of metadynamics. Poetically one may speak of the becoming of the very mechanisms of becoming." (In: Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993, p. 230).

IN CONCLUSION: THREE PERSPECTIVES ON CHANGE AND CONTINUITY

The three perspectives - concurrence, transition and evolution - lead the thinking about the marketing change agency and structure interplay into the difficulties dissociating time and change processes from their dependence on continuity. When marketing change agents enact structures to change present marketing operations and organization, this involves change processes in different temporal contexts, here compiled in three constructs.

Marketing actions in the context of concurrent processes, in the context of more long-term transitions and in the context of even longer marketing evolution, are just as much a matter of handling stability. The change agency-structure interplay is about handling different dimensions of stability of structures and stability in motion - continuity. Each time dimension is associated with certain actions to cope with stability:

Concurrence: creating continuity in ongoing processes of structural change

One central problem of handling concurrent marketing change episodes lies in change agents being able to link and synchronize, to make more stable, the ongoing processes of change:

The many endeavours and efforts to redirect Pharmacia BTG's marketing operations in the early 1990s are from 1991-92 not a problem of introducing change; rather the marketing change action-structure interplays can also be interpreted as efforts to introduce more predictability and continuity in the ongoing processes of structural change. All involved marketing change agents try to attain stable processes of structural change, leaving behind "panic responses" to structural changes induced by concurrent change processes in the context. The coordination of network and temporal orientations, coupled with a more independent position for the biotech units after 1992, contribute to stabilize the processes. New, stable marketing system structures are not set, but there is more predictability in the processes defining the future, preferred structures of the marketing organization.

Transition: breaking (while relating to) ongoing processes of stabilizing structures

During periods of marketing system transitions, there is the problem of breaking processes leading to new unwanted structures, while partly having to build on those same structures:

The period around 1989-1990, is the period of open transition. Pharmacia is leaving behind the BTG-LKB fusion process, entering a new period of many connected marketing changes. However, in the new merged biotech organization there are a number of remaining (unpredicted) lag effects of the fusion process. There is a need to break with ongoing processes of beginning stabilization. The most

serious signs of institutionalization concerns the successively decreasing coordination of interactions in the vertical organization, from the production and R&D units, to the central support units, to the subsidiaries and finally to the customers. There has emerged in the fusion process since 1986 a seemingly stable structure of weak vertical contacts and communication. During the actual merger process, there are several attempts to break the processes of emerging structures that are a result of the strong emphasis on horizontal integration of actors, resources and activities. The many starts and restarts of change projects around 1990 are the open signs of efforts to break parts of the ongoing processes of stabilizing marketing organization structures.

Evolution: breaking with (while relating to) the continuity of historical evolution

Concurrent marketing change episodes reflect endeavours connected to breaking with parts of the marketing organization's history. They reflect efforts to break with some of the continuity of historical processes:

While having to build on 30 years of stable processes of change - mostly incremental marketing organization changes - and a structural stability established even before the genesis of a biotech company in Pharmacia in 1959, the biotech company in the early 90s has to break with many established structures and ideologies. The peak of marketing change in the 1990s, as experienced by people in the organization, is due to the fact that several of the concurrent changes entail apparent elements of breaking with stable historical marketing structures and traditions. These include internal marketing actor structures, activity structures, resource structures, and the stable structures of interactions including institutionalized norms about rights and duties, roles and power distributions. The continuity of these stable processes of historical evolution are only partly broken in the BTG-LKB merger (established BTG traditions and structures come to dominate those of LKB), but the change processes from 1989 and onwards in a more radical way break this continuity of historical evolution.

Discussing marketing change makes sense only by reference to some marketing structures and processes that are stable or showing some kind of continuity, when put into a temporal perspective. Marketing change as processes over time can only be understood in juxtaposition to and in interdependence with stability. Changing perspectives, what has been discussed are not solely marketing change processes; the change episodes in Pharmacia Biotech are strategic marketing processes and human actions to handle stability in structures and continuity, stability in motion. This will be in focus in the next chapter.

9 Time, Stability and Marketing Change

Managing marketing change is about managing stability. Marketing change agency-structure interplays are concerned with handling the stability of structures and continuity of processes. Much marketing change behaviour serves to stabilize structures and introduce continuity in processes. Industrial marketing are processes concerned with the production, reproduction and modification of structures. Change actions serve to partly break and transform existing, stable operational marketing routines, norms and organizational structures. Actions to change are interdependent with actions to stabilize structures - they may even be the same. In addition, actions to stabilize structure - e.g. to structure the internal interactions and exchanges between actors - have been seen to be the origin of variation and change of strategic change contents. Marketing change agents need to act and need a repertoire of responses to react on these variations and changes resulting from structuring processes. Actions to change a stable structure in one part of a marketing system may be perceived as contradictory to actors and their ongoing actions in other parts, resulting in defense of the structures in these other parts. Changes in small steps can also have stabilizing effects, but can over a long period of time lead to considerable change. Actions to change and actions to defend stability, maybe in different parts of the network, can be interdependent.

In other words, a radical marketing reorganization and reorientation process will inevitably be connected to forces of stability. How the relationship between change actions and stability evolves depends on the context, on the temporal perspective and on perceptions.¹ The interdependence, whether positive or negative, will be there.² In the

¹In the literature, four major (implicit or explicit) approaches to the relationship between change and stability can be discerned: 1) change and stability conceptualized as separate and contrasting forces and mechanisms 2) change and stability conceptualized as forces and mechanisms on a continuous scale 3) change and stability conceptualized as forces and mechanisms connected by trade-off relationships, and 4) change and stability conceptualized as forces and mechanisms connected in an inseparable mutual dependency relationship.

²For a discussion on the interdependency between actions of stability and change from an industrial network and distribution channel perspective, see Gadde, L-E. and Håkansson, H., "Analysing change and stability in distribution channels - A network approach", In: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 166-179, 1992, and Gadde, L-E. and Mattsson, L-G., "Analyzing

same way that the sources of change can be different, the actions that lead to marketing system stability can vary.³

Relating to the concluding discussion of chapter 8, we assume that the management of stability and continuity can be approached in different ways depending on temporal perspective ("concurrency", "transition", "evolution"). Marketing changes evolve in intra- and interorganizational network contexts in which both the advantages of stability and the ability to take on a variety of forms, a certain degree of adaptability, are necessary. This capacity to mutate, to reorganize and create variation and novel solutions is dependent on the forces supporting and increasing stability. Marketing change actions take place in a moving, both stable and changing context, with strong interdependencies between the two emerging forces. In Pharmacia Biotech, the marketing change agents' interplay with structures and processes in their contexts reflected actions to break with, to use and to create stability in structures and continuity in processes. The agency-structure relationship and the efforts to change and introduce new organizational and operational stability comprised actions which stabilized and synchronized ongoing actions, including temporal profiles of the change episodes.

Continuing the discussion on the relationship between marketing change agency and structure in moving industrial contexts, the perspective is again changed. From the shifts in temporal perspectives of the last chapter, the discussion approaches the theoretical agency-structure problem from the point of view of stability. Firstly, we comment on the fact that the handling of stability, as part of managing marketing change processes, is the subject of various actions by change agents. Secondly, with a network perspective and marketing change as a collective process, change agency becomes a matter of handling partly contradictory requirements for stability and change. Thirdly, the mutual interdependencies between stability and change in different parts of the industrial network become an important part of change agents' perceptions of stability and change and interactions with moving structures. Lastly, we end the chapter by introducing a discussion on how the type and structure of network connections can affect the opportunities to use stability as a basis for introducing change.

Dynamics in Distribution", paper presented at the 9th IMP Conference School of Management, University of Bath, September 1993.

³The general forces of organizational variation, as presented in the literature, are many. While the marketing literature is associated with change as the single, delimited, one-point-in-time decision and deliberate, rationalized and planned attempts to vary from customary modes of action (coming close to the rationalized pictures of the management of innovation), the organization literature contains a number of other explanations and underlying forces. (See for example Aldrich, H. E., *Organizations and Environments*, Englewood Cliffs: Prentice-Hall, 1979).

A number of general arguments will emerge in the discussion. Firstly, in order to probe deeper into the mutual dependency relationship between stability and change, there is a need to distinguish between different types of stability and different types of change. (For example, change can be perceived both as the difference between two structural states and as having to do with a change in the continuity of ongoing processes.) Building on the case story and loose coupling theory, the two concepts variation and transformation will be introduced.⁴ Secondly, in the last section of the chapter we will take this argument one step further and speculate on how a major change can require an alteration of the two including an alteration of the mutual dependency between them.

BREAKING, USING AND CREATING STABILITY AND CONTINUITY

A marketing change episode will be concerned with handling the stability of structures and the continuity of ongoing processes. Certain actions serve to preserve or strengthen the stability or continuity, other actions serve to weaken aspects of them. Change agents might need to break certain elements of the structural stability and process continuity. They also need to relate to and build on certain elements of the stability and continuity.

Drawing from Pharmacia Biotech's strategic marketing change in the 1990s, three apparent findings concerning change agency and structure, and the stability and change interplay emerge:

Firstly, parts of a marketing change episode's contents and processes will be concerned with breaking the stability of interaction structures in the marketing organization and the stability of activity and resource structures controlled by the actors:

In Pharmacia Biotech, marketing change agents in the change episodes put much effort into motivational processes, mobilizing actors into breaking existing structures. The initial motivational processes encompass change contents whose aim are to break stable (and heterogeneous) routines among subsidiaries. The motivational processes encompass steps to formulate and disseminate *new ideas* about rights and duties among the actors in the channel, about the reduction, redistribution and control of resources (e.g. inventories), and the division of work concerning marketing support activities among channel actors (e.g. the performance and control of technical service activities). Later

⁴The last section of the chapter connects to a discussion on distribution channel dynamics started in 1992: Andersson, P., "Analysing Distribution Channel Dynamics: Loose and Tight Coupling in Distribution Networks", *European Journal of Marketing*, Vol 26, No 2, pp.47-68, 1992. Concepts and reasoning are collected from loose coupling theory as discussed in e.g: Glassman, R. B., "Persistence and Loose Coupling in Living Systems", *Behavioral Science*, Vol. 18, pp. 83-89, 1973, Weick, K. E., "Educational Organizations as Loosely Coupled Systems", *Administrative Science Quarterly*, Vol. 21, pp. 1-19, 1976, and Orton, J.D. and Weick, K.E., "Loosely Coupled Systems: A Reconceptualization", *Academy of Management Review*, Vol. 15, No 2, pp. 202-223, 1990. See also Appendix 2.

in the process, the needs to create continuity in the started change processes and introduce new stability in the emerging structures become more urgent. Pharmacia Biotech's regionalization project illustrates the seemingly paradoxical situation of having to build on the existing (vertical) actor and interaction structure (HQ-subsiidiary-customer) while breaking radically with it and heading for a completely new marketing organization structure (HQ-region-subregion/sales office-customer).

Secondly, change episodes' contents and processes also concern actions to create continuity in, to stabilize, ongoing processes of change:

In Pharmacia Biotech's marketing change episodes after 1991, much efforts are put into making the new processes of change stick within the organization. The direct interactions between central task force groups and the local subsidiaries are intensified, the processes of role-taking and role-making after 1991 contribute to introduce new, continuous exchange of information and communication, including e.g sales and cost reporting.

Thirdly, the stabilization of change episode contents and processes are dependent on the stability (in structures) and continuity (in processes) established, or on the way of being implemented by actors elsewhere and in other change episodes in the context:

With Procordia's decision to dissolve the Biosystems organization, Pharmacia Biotech is able to focus attention on ongoing marketing changes. Procordia's decision to (finally) integrate the non biotech companies in the Kabi-Pharmacia group and create a stable self-contained position for Pharmacia Biotech is generally acknowledged in Pharmacia Biotech as being an important factor contributing to the increased continuity in the change processes from 1992 and onwards.

Lastly, the creation of continuity in marketing change episode processes with a certain degree of content stability, seem to lead to more rapid and stable moves towards new (and, at least, temporarily stable) marketing organization structures:

In all marketing change episodes, the reduction of the change contents to a few focal change areas (eg. service contract sales in the after sales episode) seems to increase both continuity and speed of implementation and change processes. The dissolution of Biosystems means that change agents in the marketing change episodes can dissolve change processes and contents connected to the coordination of changes with other Biosystems companies.

How can stability in industrial marketing organizations be created and used in the interplay between the change agents and the moving structure?⁵ The development of a

⁵Gadde & Håkansson (1992): "...it seems to us that scholars tend to consider stability (in distribution channels) as some kind of 'normal' condition and change as something that has to be created...As there are always changes in the broader environment it is rather surprising that the channels do not change more than they do. Therefore

marketing change episode depends on change agents' actions to stabilize emerging structures and create continuity in processes. Change actions in change episodes have stabilizing effects on the structure of the marketing organization.⁶ In the short run, actions to create stability and continuity might even be preferred before actions to change the structure.⁷ The esoteric nature of many minor day-to-day modifications and stable operational routines, some of which serve to stabilize structures, make it difficult to see the long-term effects of these actions on marketing change.⁸ Also, refraining from taking actions - avoiding to adapt and deliberately choosing to do nothing in response - can be part of change agents' way of creating persistence in reactions to movements in the context:

In the marketing reorganization in Pharmacia Biotech also buffering actions that could be termed "strategic inaction", support the stability and persistence in the marketing organization. Due to embeddedness, marketing change agents need to buffer from changes in the context. All environmental changes cannot be attended to at the same time during the period around 1991. There are elements of such deliberate "inaction" in the distribution and after sales episodes in response to the Biosystems venture 1990-92.

Marketing reorganizations can encompass overt actions to stabilize structures or processes:

Many overt actions in Pharmacia Biotech's marketing change episodes serve to stabilize structures and processes during the course of the reorganization 1989-1995. Towards the end of the period, actions which serve to structure interactions in the new emerging marketing organization have stabilising effects. After 1992, there are more actions which served to stabilize new product and information exchanges, and decisions on who should have contacts with whom and concerning what activities. There are actions to routinize exchanges, and to set new norms for the interactions and exchanges. There are also actions of persistence; several repeated actions and efforts in the change episodes serve to make certain chosen change contents stick in the organization, later becoming part of new

we agree with Weick (1969) when he said that stability is a rather surprising condition. It should not be regarded as a normal state, but as something created by the actors.", (Gadde, L-E. and Håkansson, H., "Analysing change and stability in distribution channels - A network approach", in: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, 1992, p.167)

⁶Gadde&Håkansson (1992): "Another aspect of change is how it is perceived. Some changes have...a stabilising effect. By creating change in one dimension, it might be possible to avoid more radical changes in another, threatened as a result of environmental changes.", (ibid, p.168).

⁷Gadde and Mattsson (1993) state: "In the short run, therefore, stability is the most important determinant of performance, as stability will promote short-term efficiency in activities and make good use of resources available. According to the network perspective, therefore, stability (and a corresponding short-term low propensity to change) should not a priori be considered a sign of low performance. In the long run, however, it is obvious that changes are required to improve effectiveness and efficiency.", (In: Gadde, L-E. and Mattsson, L-G., "Analyzing Dynamics in Distribution", paper presented at the 9th IMP Conference School of Management, University of Bath, September 1993, p.21).

⁸March, J.G., "Footnotes to Organizational Change", *Administrative Science Quarterly*, 26, pp. 563-577, 1981

routinized exchanges. The sales of service contracts in the after sales episode is an example of such persistent behaviour.

Some actions in a marketing reorganization serve to support operational stability through *routinization* in the employment of resources and performance of activities.

Firstly, like in Pharmacia Biotech's change episodes, standards and formal rules can set for procedures in the new, emerging chain of production, distribution and use activities. The introduction of such standardization and formalization procedures can serve to regulate and routinize new, emerging activity structures. Activities and the use of marketing resources are made to be alike and caused to fit a single or a limited number of standards. Rules and regulations are developed through formalization (e.g. in written documents) and thus reduce uncertainties.⁹ In increased standardization efforts can be elements of rationalization, reducing inefficient use of resources while standardizing the marketing resources.¹⁰

Secondly, persistent behaviours supporting stability encompass elements of *repetition*. Repetition - to consciously perform the same type of activities in the same manner a consecutive number of times - serve to support routinization. Marketing actors learn through repetition, and past learning - e.g through trial and error in repeated actions - which increases the probability for predictable marketing behaviour. It is not until late in the process that such learning through trial and error and repetitions begin to create routines e.g in Pharmacia Biotech's after sales service operations.

Lastly, actions which support *automation* can be important steps towards an increased routinization, making changes stick and creating more stable marketing system structures. In the distribution episode, the introduction of new standardized and various information technology based automated routines supported such routinization in the introduction of direct distribution to end users.

Routinization elements can thus be important contributing factors to make changes stick and structures stabilize. Activities and exchanges between actors are stabilized by becoming more regular and predictable; actors' expectations of operations in the production system are stabilized. Marketing actors begin to develop a routinized repertoire of responses to information about the operations. The routines begin to function as

⁹In the distribution and after sales episodes, a number of such standardization and formalization procedures began to support routinization and stability in the new emerging production systems after 1992.

¹⁰System interdependencies and thus stability increased in the combined standardization, routinization and rationalization of the physical distribution system e.g in Pharmacia Biotech's European distribution change process after 1992.

control mechanisms in the production and distribution system, preventing or deterring actors from beginning to pursue new (change) activities, threatening the feasibility of the new structure and performance of the system. Later, emerging routines for certain activities can increase the opportunities to turn to new change contents (in the distribution and after sales episodes, the beginning routinization of activities enabled change agents to turn to new change contents after 1992).

Various internal, relationship specific, *adaptations* in the emerging structure paired with increased specialization (control of activities and resources) can also emerge as stabilizing factors for marketing change agents to use when trying to support the creation of more stable structures in the moving context. In Pharmacia Biotech's regionalization process, the adaptations made and the increased *specialization* processes in the role-taking and role-making between HQ, regional and subsidiary units seemed to support the emerging structural stability after 1993. In the early phase, many corrective, mutually adaptive actions can be necessary, and the consequence of such corrective actions can be an increased stability.

In summary, much of a marketing change agent's interplay with the moving context serves to stabilize the emerging structures of activities and resources. Several actions and behaviours seem to be able to support such stabilization: 1) increased routinizations (standardizations, formalizations, automation), 2) rationalizations, 3) adaptations, and 4) increased specializations.

Change agents use actions and interactions to support an emerging stability in the structure of interactions. In the complex process of reorganizing the actor structure of a marketing system, the continuity of the process and the stability of the new actor and interaction structure can be supported by various actions. When Pharmacia Biotech decided to use market area managers to connect the new emerging sub-regions with the new emerging regional actor in the marketing system, the actions to implement these linking pins became a way to avoid the risk of losing continuity in the vertical contacts between the new actors. Actors are used as coordination resources to avoid losing the continuity of contacts and interactions, supporting the structuring of new interactions. In this way, various actions which support stability in interactions encompass coordination strategies which make use of different linkage elements, linkage levels and linkage mechanisms in the marketing network.¹¹ We have seen that various forms of structuring processes of the interactions support the creation of new marketing system structures.¹²

¹¹As noted by Mulford and Rogers (1982) in their overview of models on interorganizational coordination: "...depending on the kind of coordination strategy to be used, various combinations of elements, levels and linkages are likely to be successful".(Mulford, C.L. and Rogers, D.L., "Definitions and Models"

SOURCES OF CONTRADICTIONS AND AMBIGUITY; DIFFERING REQUIREMENTS FOR STABILITY AND CHANGE

The interplay between marketing change agency and structure, between actions supporting, relating to or weakening stability and continuity, will inevitably involve aspects of time. Change agents' contextual positions with limited network horizons and the impact of temporality with lead and lag aspects of change, make interpretations of stability and change a matter of perception:

While the Pharmacia management officially states that the structure of the new joint BTG-LKB organization is stable and set in 1988, the structural change processes from the merger continue throughout the whole organization until 1990-91. While the management group is heading for new structural changes (the Volvo-Procordia deal) - assuming that the companies in the group now are acting in fairly stable structures - marketing change agents are still in the process of trying to introduce organizational stability. BTG is still in the process of adapting the production organization, resulting from the acquisition of LKB in 1986.

Different perceptions (and actions) of stability and change in the organizational network contribute to create tensions and ambiguities, affecting further change actions. There will emerge different types of change interdependencies in the marketing network.¹³ Tensions between different requirements for stability and change in the marketing network appear between concurrent change episodes, during transitions and when episodes are positioned in the long-term evolution of the marketing network.

Concurrence

Concurrent changes can be coupled to lack of *synchronization* and *coordination* which can lead to successively emerging, unexpected couplings between change processes, hindering the creation of process continuity and leading to increasing ambiguity about what structures to act in. The difficulties to introduce continuity in ongoing processes of structural change can result from difficulties to introduce and plan for a *sequencing* of actions in change episodes; there can be constant adaptations and reformulations of the sequential order in which change contents shall be introduced and in what parts of the

(chapter 2), in: Rogers, D.L. and Whetten, D.A., *Interorganizational Coordination: Theory, Research, and Implementation*, Ames, Iowa: The Iowa State University Press, 1982, p.30)

¹²Discussed in chapter 4-5.

¹³Gadde and Mattsson (1993) state: "There are certain difficulties associated with the implementation of changes; i.e. to handle what we have called change interdependencies.", (in: Gadde, L-E. and Mattsson, L-G., "Analyzing Dynamics in Distribution", paper presented at the 9th IMP Conference School of Management, University of Bath, September 1993, p.21). Compare with Hertz (1993) who uses the term "domino effects" to describe one type of change interdependencies in networks of international freight transport companies. (In: Hertz, S., *The Internationalization Processes of Freight Transport Companies*, Economic Research Institute, Stockholm, 1993).

context. Change agents are not able to allocate their time, to *differentiate*, to those processes and contents which are supposed to support the creation of predictability and continuity. The *timing* of the change episodes in relation to each other can become a hindrance in the attempts to create continuity. Paradoxically, tensions emerging can be a trigger to handle the problems of lack of continuity more efficiently and effectively. The extended *duration* of the change process can be broken and the *speed* can be increased. There can emerge a clearer view of the actor structure among change agents, giving room for increased speed in the introduction of changes in internal marketing activities and resources.

As the new marketing structure is beginning to emerge and stabilize, the former contradictions between temporal profiles of various change episodes can be reduced. The stability of the organizational actor structure (or at least, the more apparent predictability and continuity in the structural change process) can have a positive effect on the sequential structures of certain actions, on their duration, and on the opportunities to time them. While the rate of change can increase, continuity can also increase - there are fewer changes in speed, rhythms and durations. Increasing continuity, in turn, allows for an emerging organizational stability, decreasing perceived ambiguities.

Transition

As regards "transition", when moving from one state of functioning to another, part of the agency-structure interplay can become concerned with difficulties to break from a structure resulting from preceding episodes with a particular (maybe an "unstable", "unrhythmic") temporal profile (like in the LKB-BTG merger process 1986-1989). Marketing change episodes can be born within a changing internal structure, where the lags in some processes lead to overlaps with new emerging changes. The lags in the processes to create a new integrated BTG-LKB production organization overlaps in time the new emerging marketing changes. In some respects, new change episodes will come to contain the same characteristics as the previous episodes. After 1989, change episodes emerge with little coordination of temporal profiles; sequential structures, planned durations, and timing.

Evolution

Marketing change episodes' timing in the long-term historical change processes, in the "evolution", of the near and of the wider context can have effects on the temporal profiles, on the possibilities to create continuity in the change processes and on the change agents' structural orientations. The problems of "concurrence" and the difficulties to create change continuity can be determined from higher levels in the organizational network. Timing can create problems:

Pharmacia Biotech's marketing change agents 1989-1992 find themselves in the middle of the major steps to restructure the Swedish pharmaceutical industry, entering also a new path of international mergers. The timing creates problems. The Kabi-Pharmacia merger reverses the long-term continuous process of organizational de-integration of the biotech from the diagnostics and pharmaceutical actors, activities and resources.

This can reduce the opportunities to establish marketing change continuity in the system, and narrow the time perspectives and time orientations of the change agents. The marketing agency-structure interactions can become dominated by orientations towards interpreting (ambiguous) structures of the immediate present. It is only when Pharmacia Biotech is uncoupled from the evolutionary processes of the pharmaceutical Kabi-Pharmacia conglomerate that the company's marketing change agents can start to relate also to the planned marketing organization structures.

Factors of time thus enter marketing change processes in different ways and in different dimensions. The way marketing change agents relate to, enact and use structures to introduce change is intimately connected to many different time dimensions. Stability in structures is important for introducing change, but will in a temporal perspective always be relative. It might in the short term perspective mean that actors perceive a certain degree of predictability in the structural change processes, because there is a certain degree of continuity in the processes leading to new marketing organizational structures. It can mean that the collective of change agents are introducing a certain degree of synchronization and coordination of the temporal profiles of their ongoing change processes. In a longer time perspective, it can mean that marketing actors have to relate to, break with, and build on the stability of structures resulting from the continuity of historical evolution.

A major break with prior structures will be problematic. Introducing new stable marketing structures means introducing new temporal dimensions in the structures, while also having to work with stability and change in the temporal profiles of the actual change episodes introducing the change.

Marketing change agents' interplay with moving structures during the course of a strategic marketing change will involve handling different contradictory requirements concerning change and stability in the organizational network.¹⁴ Various coordination

¹⁴As stated by March (1981): "However, there is no particular a priori reason for assuming that individuals' desires for change and stability will be mutually consistent or will match requirements for organizational survival. Moreover, the survival of an organization is a more compelling requirement for the organization than

actions and temporal synchronization efforts can be part of the repertoire of actions to cope with these contradictions.

MUTUAL INTERDEPENDENCIES BETWEEN STABILITY AND CHANGE

The ability by marketing change agents to undertake change in one part of the moving structure can be dependent on stability in another part of the network.¹⁵ Hence, the contradictions and trade-offs between different requirements for change and stability is also complemented with mutual, positive interdependencies. One of the central problems of major marketing reorganizations with several interacting and concurrent change episodes is that the ability of one change agent to take advantage of this mutual interdependency can be heavily restricted. Too many relationships in the network are changing concurrently:

Pharmacia Biotech's after sales change agent has to introduce change through a network of relations (service departments in market subsidiaries (and regional units), local (and regional) market departments, HQ marketing support and production units, Pharmacia executive group, end users, dealers, other companies in the Pharmacia group) in which the lack of stability affects the ability to create continuity in the change process. The task force group's opportunities to use as foundation the stability in the direct and indirect relationships to some of these important counterparts when mobilizing one of the others for change, become heavily restricted. The many concurrent changes result in the relationships and new interactive structures becoming unstable and uncertain. Many change agents are competing in the mobilization of the same counterparts. The stability of prevailing relationships with the end users is uncertain; while there are indications that customers are successively becoming more disloyal, it is a generally accepted notion in the company that a large number of them still promote an important stability for the whole company when implementing the marketing change episodes from the late 1980s and onwards.

The ability by marketing change agents to introduce change in one part by building on stable relationships in another part of the marketing network is dependent on both internal as well as external relationships. For certain change agents and depending on network positions, this interdependency can transcend formal borders between companies. A

it is for a system of organizations. Survival of the system of organizations may require organizational changes that are inappropriate for the individual organization; it may require greater organizational flexibility or rigidity than makes sense for the individual organization.", (In: March, J.G., "Footnotes to Organizational Change", *Administrative Science Quarterly*, 26, 1981, p.571).

¹⁵In accordance with Gadde and Mattsson's (1993) view that in industrial distribution systems: "The changes might be easier to undertake if some of the prevailing structural interdependencies can be utilized to promote the change. What we mean is that stability in the relationship to some of the most important counterparts would facilitate the change process.", (In: Gadde, L-E. and Mattsson, L-G., "Analyzing Dynamics in Distribution", paper presented at the 9th IMP Conference School of Management, University of Bath, September 1993, p.21)

tentative conclusion is that the lack of stability and predictability in internal relationships can be as devastating to the implementation and continuity of change as the lack of stability to external actors, when entering a marketing reorganization.

The ability of marketing change agents to take advantage of stability when introducing a radical marketing change (e.g. in customer relations) is complemented with other forms of interdependencies. Introducing new, further changes can be an important foundation for change agents' ability to stabilize ongoing structural change processes, moving towards a new (stable) interactive structure:

In 1986, Pharmacia Biotech enters a long period of radical marketing reorganizations. The lack of organizational stability becomes a problem, but the seemingly paradoxical situation appears, that to be able to introduce stability and continuity in the early 1990s, there is a need for further organizational changes. And these organizational changes have to be introduced in other parts of the Pharmacia Group, only indirectly linked to the biotech units. The dissolution of Pharmacia Biosystems in 1992 becomes another necessary change, which opens up new opportunities for the biotech company to create continuity in ongoing marketing change processes and stabilize structures.

The interdependency between actions to stabilize and actions to change existing structures is mutual. Judging from the example, the links between the stable and changing parts can be both direct and indirect.

MARKETING CHANGE, STABILITY AND PATTERNS OF NETWORK COUPLINGS

Against the background of interdependencies between change and stability, what does the case of Pharmacia Biotech tell us about the relationship between marketing change agency and moving marketing contexts? Anecdotal evidence from change agents of the change episodes indicate the difficulties when having to introduce a change in a changing structure of very weak connections and relationships (e.g. the after sales service episode). Many situations, events, activities, actors, etc. in the marketing network of the company are during the process only loosely related to one another, if at all, even within the same biotech "channel" and company.¹⁶

Pharmacia Biotech's network of marketing actors controlling the interconnected activities show signs of loose and tight couplings. Changes in the organizational couplings result in

¹⁶This section connects to a discussion on distribution channel dynamics started in 1992: Andersson, P., "Analysing Distribution Channel Dynamics: Loose and Tight Coupling in Distribution Networks", *European Journal of Marketing*, Vol 26, No 2, pp.47-68, 1992

the emergent properties of stability and change in the marketing organization, which is also the context which the change agents enact.¹⁷ When the task force group of the new After Sales Service Division in the start of the reorganization process complains that they "do not have any stable, internal connections to other divisions in the organization", the situation (with weak links to marketing subsidiaries, customers, R&D and production divisions, management, marketing and sales, and the other non-biotech companies and units in Pharmacia) opens up for fairly independent actions, but is concurrently a hindrance when trying to mobilize actors for change.¹⁸ While the situation and context with loose couplings between the new Division and counterparts opens up for a high degree of adaptability and flexibility, the lack of stability and tight couplings renders difficult the mobilization of other actors to adapt the service operations to the Division's new ideas.

For the individual change agents in Pharmacia Biotech's marketing organization, the evolving characteristics of the context come to involve dilemmas - trade-offs - between adaptations to exploit present opportunities (i.e. basically adhering to existing structure and stability) and adaptability through changed structures in order to exploit future opportunities. The strategic trade-offs involve actions affecting the couplings between units. Simultaneously, the forces of stability and change are interdependent, the emergent property of one being dependent on the properties of the other.¹⁹ The organizational network shows patterns of loose and tight couplings, but the blurred boundaries between systems and between sub-units within the organization does not make it easy to state that in any part of it the ties within a sub-system are stronger than ties between formally defined sub-systems. For example, the attempts to create and then stabilize an operational Biosystems unit are difficult because of the lack of stability and tight couplings between the seven companies. The "modularity" and adaptability that the existence of loose connections between the companies can allow for - i.e the seven companies can be grouped into a new loosely coupled unit without any major problems

¹⁷Effects of loose and tight couplings are discussed e.g. in: Glassman, R. B., "Persistence and Loose Coupling in Living Systems", *Behavioral Science*, Vol. 18, pp. 83-89, 1973, Weick, K. E., "Educational Organizations as Loosely Coupled Systems", *Administrative Science Quarterly*, Vol. 21, pp. 1-19, 1976, and Orton, J.D. and Weick, K.E., "Loosely Coupled Systems: A Reconceptualization", *Academy of Management Review*, Vol. 15, No 2, pp. 202-223, 1990

¹⁸Loose coupling exists when structures and activities in various parts of an organization are only weakly connected to each other and therefore are free to vary fairly independently (Aldrich, 1979). The implication of loose couplings within organizations, within systems of organizations and between systems is that units become relatively independent of momentary environmental change. Hence, the presence of loose and tight couplings provide a background for understanding both persistence and transformation in organizational networks.(In: Aldrich, H. E., *Organizations and Environments*, Englewood Cliffs: Prentice-Hall, 1979, pp. 76-77).

¹⁹As noted by Aldrich (1979):"(organizations and systems) achieve stability and continuity of existence precisely because they contain "holes". Not all possible links between people, departments, or organizations are realized, and many links develop in ways that promote stability." (ibid, p. 76)

during the first phases - later turns into severe problems when coordination must increase with tighter relations and stability between the companies.

The trade-offs and interdependencies between stability and change connected to the change episodes in Pharmacia Biotech can be linked to the characteristics of couplings in and between the systems, sub-systems and units. The emerging properties provide the dynamic context in which the focal actions take place. The ambiguities connected to marketing change agency-structure interplays can be derived from the fact that stability and change in industrial marketing organizations with both loose and tight couplings between units are connected through trade-off and interdependency relationships. Building on the case and drawing from theories on loose coupling and change,²⁰ trade-offs and interdependencies are elaborated on in Appendix 2.

Adding assumptions of the consequences for change (and stability) of loose and tight couplings in and between organizations, relating them to Pharmacia Biotech's marketing change processes, is it possible to develop some tentative suggestions concerning the relationship between marketing change and stability over time? Building on the previous discussions (including Appendix 2) we end the chapter by opening up for some speculations and tentative suggestions.

VARIATION, TRANSFORMATION AND INTERDEPENDENCIES WITH DIFFERENT FORMS OF STABILITY

To guide the concluding discussion, we elaborate on the following general proposition when approaching marketing change and the interplay with forces of stability:

The nature of the relationships between marketing change and forces of stability will change over time as a consequence of the fact that the structural patterns of loose and tight couplings in the moving context change. With a longitudinal perspective, it is necessary to consider different types of change and different types of stability.

To simplify the discussion, we make the assumption that networks can be either predominantly loosely coupled or tightly coupled. Both types of networks can show open signs of stability, but of different kinds. The loosely coupled marketing organization can show *persistence*, promoting, for example, continual variation through localized

²⁰Drawing from e.g. Glassman, R. B., "Persistence and Loose Coupling in Living Systems", *Behavioral Science*, Vol. 18, pp. 83-89, 1973, Weick, K. E., "Educational Organizations as Loosely Coupled Systems", *Administrative Science Quarterly*, Vol. 21, pp. 1-19, 1976, and Orton, J.D. and Weick, K.E., "Loosely Coupled Systems: A Reconceptualization", *Academy of Management Review*, Vol. 15, No 2, pp. 202-223, 1990

adaptation and adaptability.²¹ The tightly coupled marketing organization can show *stability* by promoting adaptation efficiency and system responsiveness built on a higher degree of centralized control with longer chains of consequences, and system integration with division of work efficiency.²²

We start the discussion by linking back to the case, making the assumption that Pharmacia Biotech's marketing organization during different periods and states of functioning showed different patterns of couplings between units in the organization. Secondly, different periods in the company's development were also characterized by different types of change processes, here simplified to the two concepts *variation* and *transformation*. Thirdly, building on the case and its marketing change episodes and connecting to theoretical discussions on loose couplings in organizations, we elaborate on the interdependencies between structure and process, between patterns of couplings (including different types of stability) and the two types of change processes. Lastly, we elaborate on change in general as a movement from one type of interdependency between structure and process, between stability and change, to another.

Structure: different patterns of couplings

To simplify the picture, Pharmacia Biotech's marketing organization during the period of rapid growth (sales growth and organizational growth) during the late 1970s and early 1980s can be said to be characterized by a certain degree of loose couplings between units in the marketing organization. There is a high degree of new sales orientation in the customer-subsidiary relations with an increasing number of loosely coupled customer counterparts. The market subsidiaries are growing, showing an increased degree of heterogeneity, localized adaptations and self-determination in relation to central HQ divisions. And there are loose couplings between central marketing support units and production and R&D units. In the early 1990s, on the other hand, the marketing reorganization processes result in tighter couplings between all units in the marketing organization (between local key account customers and local sales organizations, between local sales organizations in sub-regions, between local sales organizations and regional organizations, between regional organizations and central HQ support units, between central HQ support units and production and R&D units, and others).

While the first period is characterized by persistence through adaptability based on a high degree of localized adaptation, the latter period sees the emergence of a higher degree of stability with more standardized marketing organization solutions throughout the whole

²¹See e.g. Weick, K.E., "Management of Organizational Change among Loosely Coupled Elements", in: Goodman, P.S., et al.(eds.), *Change in Organizations*, San Francisco: Jossey-Bass, 1982, pp. 375-408

²²Ibid, see also Appendix 2

marketing organization, a higher degree of centralized control of marketing change processes, and the emergence of more rapid and efficient internal adaptations between units. In the former situation, the marketing organization *persist*s through a lower degree of internal integration and specialization, and a high degree of localized adaptation and adaptability. In the latter case, the marketing system moves towards higher internal integration and specified division of work (differentiation), and system *stability* and survival through centralized control and efficient internal adaptation. Hence, in the strategic change process, the basis and characteristics of stability change.

Processes: variation and transformation

Between the two periods discussed, the marketing change processes also change character. The first period is characterized by change through *variation*, i.e. change through localized, small-scale innovations with a high degree of heterogeneity and self-determination among the local marketing subsidiaries. More encompassing changes take a long time to institutionalize. The second period (or rather, the later parts of this period) will be characterized by change through *transformation*, i.e. a higher degree of systemwide change with longer chains of consequences of change interventions. The transformation - encompassing changes of actor, activity, resource, interaction and normative structures - evolves more quickly during the later stages, within the emerging, more tightly coupled marketing organization.

Interdependencies between structure and process

The simplified picture above of the evolution of Pharmacia Biotech's marketing organization can be summed up in a matrix (figure 9.1.).

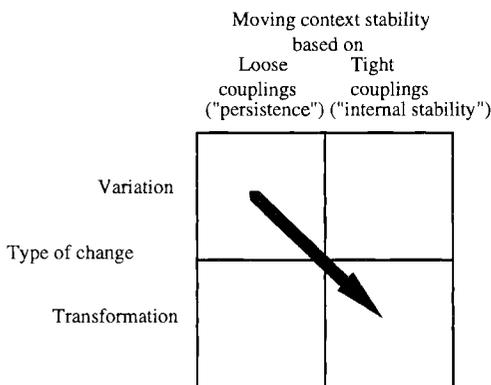


Figure 9.1. Pharmacia Biotech's marketing system change

With this simplified view of the change process, Pharmacia Biotech's marketing reorganization illustrates the major problem of having to implement, in short period of

time, a systemwide *transformation* of a marketing organization, having to build *initially* on a form of system "stability" (here: based on "persistence") better suited for change through *variation*. That is, slower change characterized by continuous (small-scale) innovations through localized adaptation, behavioral discretion with self-determination and fairly short chains of consequences of change interventions, and adaptability through e.g. organizational "modularity".

Pharmacia Biotech's strategic marketing reorganization involved a change of the process of marketing change; moving from a focus on successive, continual variation during most of the 1980s to a transformational change in the late 1980s and 1990s. Hence, the transition from the late 1980s to the processes and structures of the early 1990s, included also a change of the mode of changing, including a change of the interdependency between change and stability.

CHANGE: MOVING BETWEEN DIFFERENT INTERDEPENDENCIES BETWEEN STABILITY AND CHANGE

Pharmacia Biotech's move from a situation of variation/loose couplings/persistence to a situation of transformation/tight couplings/(internal) stability illustrates in this perspective the problem of moving *between* two different types of situations. The general form of system stability supporting the present type of system change is different in the two situations. In the initial steps of the second period (around 1989-1991), change agents attempt to implement a major, centrally controlled, reorganization. This takes place in a situation where local marketing units have become used to survival and persistence through loose couplings to central units, self-determination, adaptability through local adaptations where minor marketing innovations are made continually, and through local, organizational heterogeneity (relying on "modularity" in the combination of local units for sales, application services, technical services and management, involving biotech units as well as diagnostics and to a minor extent also pharmaceutical units).

It can be anticipated that the type of change depicted for Pharmacia Biotech (moving from "square 1" to "square 4" in the matrix) will be difficult; both the type of change and the type of marketing organization structure and stability upon which the change process is based, are changed during the process. This can also be anticipated to be one of the reasons behind the difficulties to create *continuity* in the actual change process. The logics for using the interdependency between change and stability have to be altered as well during the course of the process. It can be assumed that continuity in change processes (i.e. a higher degree of predictability and stability in change contents, change processes

and temporal profiles of change episodes over time) is more easily achieved *within* "type 1" or "type 4" situations. Thus, it can be assumed that the prerequisites for introducing change through (long-term) variation with localized adaptation in a loosely coupled situation (1), and a (quick) systemwide change with centralized control with longer chains of change consequences in a tightly coupled system (4), are better compared to situations where the underlying principles for interdependencies between change and stability do not fully "match" ("type 2" and "type 3" situations) or when the underlying principles have to altered (e.g. moving between "type 1" and "type 4" situations or vice versa).

Around 1989-90, as a new M.D. assumes his duties, a significant number of change projects are started in Pharmacia Biotech. While still acting in a situation of loose couplings in the system after the LKB-BTG merger process, the company aims for a rapid transformation (moving towards a type 3 situation). However, it is soon acknowledged that it will be difficult to implement this transformation. Resuming, intensifying and stabilizing the contacts in the marketing organization is instead given priority (moving towards a type 2 situation), leaving partly the ideas of a rapid transformation. Hence, some of the steps taken in Pharmacia Biotech's marketing reorganization, can be interpreted as movements between the four type situations i figure 9.1. To simplify the picture, when moving from a situation of variation/loose couplings aiming for transformation/tight couplings, theoretically, change agents can attempt a transformation strategy, e.g. implementing many concurrent change episodes in a still loosely coupled system. Alternatively, change agents can focus attention to a certain part of the system, working with a small-step variation strategy, successively creating tighter couplings, and thus prerequisites for transformational changes. Furthermore, marketing change agents in different change episodes might adopt different strategies.²³

Within this line of reasoning, short-term marketing changes with "concurrent" processes will be easier if performed in a situation where the type of change matches the type of stability/persistence that the system is based on. A "transition" will be more difficult, especially if it involves changing also the underlying logic for (positive) interdependency relations between change and stability in the process. In a longer time perspective, it is likely that change agents and marketing organizations will move between these different types of situations in the "evolutionary" processes of the system.

²³A comparison of the distribution and after sales service episodes, indicates some possible differences in this respect. In the former episode, change agents adopted relatively early the strategy to tighten the internal couplings between central and local distribution units, focusing one or a few local units and relations at a time (moving initially towards a type 2 situation). In the after sales episode, the change agents attempted to introduce a more systemwide change from the start (moving towards a type 3 situation).

With a dynamic view of the interdependency between change and stability, change agents will need to cope with trade-offs and "tensions" between the two. When moving towards a more tightly coupled system and a higher degree of transformational marketing change processes, while living in a situation of predominantly loose couplings and change through variation, change agents have to cope with the negative aspects of the latter. That is, change agents have to cope with the fact that actors in the system (e.g. marketing subsidiaries) might have fostered stability through partial resistance to change. Actors might have become used to buffering of disturbances through localized adaptation, to open selection of changes that are permitted to be retained, to little standardization with diversified responses to change, to short chains of consequences of change initiatives in the system, and to relatively little attention directed at specialization and division-of-work efficiency between units (e.g. *between* market subsidiaries).

One way of coping with the process of moving between different type situations is to direct attentions to certain sub-systems of the marketing organization. By concentrating efforts to a chosen part of the system, mobilizing a chosen set of actors into tighter couplings and a move towards more rapid transformational changes, the stability in other parts (based on persistence, loose couplings and partial resistance to change) can provide the (intermediate) stability that is necessary to make the new type of change stick in the organization. Marketing organizations will have patterns of loose and tight couplings, and thus, in order to introduce and stabilize a new type of change process, change agents need to be able to use these patterns of couplings.

Change agents will have to manage change differently, depending on the present situation of loose and tight couplings,²⁴ and on the type of change that is aimed for. As a consequence, the prerequisites to use stability as a basis for introducing and managing the change process will not be static. Managing marketing change can involve also managing a change of the prerequisites for using stability as a foundation for introducing the marketing change.

²⁴Weick (1982) has suggested that to manage change in an open, loosely coupled system is to adopt strategies such as: 1) concentrate efforts on one or two critical problems, 2) learn the history of an issue, 3) build coalitions to mobilize support, and 4) use the formal system of committee membership and the informal system of discussions and mediation (p.377). (In: Weick, K.E., "Management of organizational change among loosely coupled elements", in: Goodman, P.S. et al (eds.), *Change in Organizations*, San Francisco: Jossey-Bass, pp. 375-408, 1982).

10 Stability and Change in Pharmacia Biotech - Some Lessons

If scientific progress is measured by simplification, this is a story of retrogression. From a simple perspective of anticipatory, consequential, rational choice, we have gone first to a recognition of the limitations on rationality, then to concern for internal conflict, then to history dependent conceptions of human action, and finally to an awareness of the profound ambiguities surrounding action in organizations. Although decision-making as it occurs in organizations can probably be better understood and improved through these speculations, the speculations force us to less simple formulations. Life has proven to be more complicated than our earlier mythologies of it.¹

Our view on intentional marketing actions and change processes in moving industrial contexts has partly drifted in the same direction, away from managerial marketing models based on anticipatory, consequential, and linear rational choice. In the attempts to come to grips with the great problems of marketing change agency in moving contexts, the empirical case, in combination with a search in the literature for avenues which may open new vistas into thinking about this problem, generated some alternative paths into the area of marketing management and change. The attempts to reconstruct Pharmacia Biotech's radical marketing reorganization generated a descriptive logic. Part of this emerging, descriptive logic in turn pointed to theoretical and managerial issues that might serve as clues in the search for alternatives to overly rationalistic marketing models.

In this last chapter, we return first to our research question and the theoretical issue and purpose of the study, discussing some of the major findings concerning marketing change agency and structure in moving contexts. A set of chosen managerial issues will also be discussed, focusing on five general themes. Some of the methodological approaches and lessons of the study are summarized in the last section of the chapter.

¹March, J.G., *Decisions and Organizations*, Oxford: Basil Blackwell, 1988, p.15

THE RESEARCH QUESTION AND THEORETICAL ISSUE

Given the expressed interest from the outset to explore the processes of reorganizing the marketing organization of an industrial, high-technology manufacturer, a more specific interest crystallized during the course of the study: to probe into the nature of the processual relationship between marketing change agency and moving structures:

How does a manufacturer reorganizing its marketing operations handle the fact that change agents must accomplish the changes within and through structures which are transformed during the course of the change processes?

The question emerged as a consequence of several insights gained during the first empirical investigations of Pharmacia Biotech's marketing reorganization.

Firstly, a marketing change appears over time, stretching over time. It proved to involve temporally embedded change episodes without any clear beginnings or ends. During the course of the longitudinal change processes in the case, the structures in which the marketing changes were initiated were altered. This obviously had consequences for the way marketing change agents used and interacted with the structures of the context where the changes were implemented.

Secondly, a strategic marketing reorganization proved to be a collective process, with several loosely and tightly connected change agents responsible for altering different parts of the marketing organization. These, both contestable and complementary change episodes, were temporally overlapping, often concurrent, change processes. The structure in which the marketing change was implemented was moving due to other changes taking place concurrently. Some of these changes took place at other organizational levels and were not directly aimed at the focal company's marketing organization.

Thirdly, the participating industrial "actors" and their "channels" proved to be morphogenetic, self-transforming, changing over time as a consequence of their own and of the actions and reorganizations of others. This had consequences for the organizational belonging of the marketing change agents and their way of coping with the structures in which the marketing changes were implemented.

It was obvious that the question and the theoretical purpose that began to crystallize - to unravel the nature of the interplay between industrial marketing change agency and structures in a process perspective - were too complex and too broad to be covered within one singular analytical perspective, systemic or temporal. One of the main obstacles was to overcome the underlying ideas, theories and perspectives that had become embedded in

some of the initial, tentative questions posed.² There was a need to take a step back and retrogress into complexity, unwillingly giving up some of the earlier preconceptions - "mythologies" - of the nature of industrial marketing organizations and the way they are changed. But, in this process lay subsequently the seeds of some of the theoretical findings.

SIX THEORETICAL ISSUES

Let us recapitulate and summarize some of the ideas and arguments that have emerged in the text, concerning the relationship between marketing change agency and moving structures. Firstly and foremostly, this interplay cannot be separated from its context; it is born in a context, it develops and is discontinued in a context. In short, the nature of the interplay between change agents and structures over time concerns the who, what, why, when, where, and the how of this interplay, and each and every answer depends on the context. The study of Pharmacia Biotech suggests some general tentative answers to these questions. Six general themes and perspectives are presented, with implications for the theoretical issue:

1. A collectivity of change agents acting concurrently
2. A morphogenetic, self-transforming network context
3. Morphogenetic marketing change episodes
4. Interaction driven marketing change contents
5. Origin and result of marketing change: contradictions, tensions and ambiguities
6. Dynamic temporal profiles of change episodes and multiple time contexts

A collectivity of change agents acting concurrently

Who is the marketing change agent which is interacting with the moving structure, i.e. what is the general nature of change agents and of change agency? Our study pointed to the fact that the questions and the initial underlying view of singularity needed to be reconstructed. The management of change in industrial marketing organizations is a collective process with several change agents acting in several, directly or indirectly connected contexts. There will be several change agents interacting with the moving context during the course of a marketing change process. In the near present, the movements in the context of a single marketing change agent will be caused by the concurrent change actions of other, loosely and tightly connected, change agents. This collectivity of concurrently acting change agents will be more or less distant from the core

²See chapter 1. The emerging issues were connected to several loosely formulated questions, e.g: How does a manufacturer over time change and adapt its distribution and marketing organization and activities to changes in the context? Why does it from time to time reorient and reorganize its marketing and distribution operations? What are the forces behind the change processes leading from one marketing and distribution system structure to another? How does a strategic marketing change project transform over time as a result of the fact that it evolves in a changing context?

of whatever is defined as "marketing" actors, activities and resources in the industrial context. During the course of a change process, different change agents will temporarily be both complementary and competitive, also within the same formal company, marketing channel or corporation. Every change agent will develop, and act from, its own organizational position, developing its own goals and change logics that will be more or less contradictory or complementary to those of other change agents.

Concurrence restricts the single marketing change agent's possibilities to carve out its own unique path and sphere for marketing change. Consequently, the theoretical and practical issues of marketing management should focus the interactions and interdependencies *between* change agents, complementing those concerning each single change agent. The case of Pharmacia Biotech seems to confirm Alderson's idea about the marketing actor requiring both a certain degree of "systacy" and "monostacy", a need to stand together while trying to create its own unique niche or position.³ Our case suggests that marketing change even within the same company or corporation is concerned with the problems and opportunities of "balancing" systacy and monostacy over time. Complementing the focus on their own concerns - change contents, processes and context - marketing change agents will have to be concerned with those of other change agents. A central theoretical as well as managerial issue is to understand marketing change agents' mechanisms for balancing over time the need for linking and coordinating different change agents, with the need to (temporarily) buffer from other change agents and their actions.

Interactions will be the means and ends of these mechanisms. Marketing change agents will be positioned in intra- and inter-organizational hierarchies and formal power structures, but the case and the idea supporting our case is that an important clue to understanding marketing change lies in the mechanisms whereby change agents interconnect in marketing organizations, networks, through change contents and change processes, in interactions (motivation/mobilization, interaction, structuring) and in the activities and resources of their production system(s). This also has obvious limitations on the single change agent's possibilities to use "linear" planning models and non-interactive power bases as means to change the marketing organization.

A morphogenetic, self-transforming network context

Where, in what type of context, do marketing change agents interplay with the moving structures, i.e. what is the nature of this context? The study has viewed the context, industrial marketing system, in which marketing change agency takes place as a both

³Alderson, W., *Marketing Behaviour and Executive Action*, Homewood, Ill.:Richard D. Irwin, 1957, pp. 325-327

endogenous and exogenous industrial network, relative to the perspective and change processes in focus. Change agents' interactions and relationships cut across formal organizational and "channel" boundaries; their mobilizations, interactions and structuring processes are basically network endogenous. However, continuous reorganizations with moving channel boundaries make the characterization of what is endogenous or exogenous relative, depending on the time frame and delimitation of the marketing change process in this context. This viewpoint and treatment of the context also provides a link to understanding the nature of marketing change agency. Constant reorganizations with moving network boundaries will always pervade the network with internal contradictions, between the logics of connected, overlapping networks.

With many change agents, acting from their own particular organizational positions, the marketing organization with this view becomes a morphogenetic, self-transforming network. The resulting, moving structure relies on and is caused by many intentional actions, but the resulting outcome in all its detail will not be intended by any single change agent. The "organized behaviour system",⁴ even a marketing organization of a single firm, will never be planned from above by one dominant change agent. It will result from the interacting actions of actors within and outside the system, transforming the boundaries between different marketing systems. The collective actions of multiple marketing change agents constantly create new part-whole relations in the industrial network, resulting in new contradictions. The self-transformation is caused by a multitude of concurrent, ongoing changes in the network. Every such set of ongoing social network and technological changes will be dependent on context. Marketing change agency will be concerned with adapting to, relating to and amplifying these ongoing processes of social and technological change in the self-transforming network.

Morphogenetic marketing change episodes

How and in what form do marketing change agents interact with the moving structures? The marketing change processes in Pharmacia Biotech have been perceived as a set of interconnected change episodes: change processes with basically arbitrary temporal boundaries and only loosely related to formal change projects. The nature of the marketing change episodes, their contents, processes, temporal profiles, and change agents and concerned actors, are context dependent. They are each born within a context pervaded with history, and they transform and dissolve in a context putting its obvious marks on the episodes.

⁴Alderson, W., *Marketing Behaviour and Executive Action*, Homewood, Ill.:Richard D. Irwin, 1957

The border between marketing and other change episodes is basically arbitrary and open for different definitions. It has been shown in the case that with this open view of marketing changes, it becomes difficult to separate what is openly defined as marketing and distribution changes from organizational changes in other parts and on other levels in an organization or system. As a result, a marketing change episode will be dynamic and morphogenetic: its contents, processes and context will over time be both stable and changing, transformed by the actions of its change agent and by the actions performed in other change episodes and in other parts of the organization or system. Implicit and explicit hierarchical levels can emerge between change episodes, restricting and creating opportunities for the development of each specific marketing change episode. Change agents' mode of coping with this embeddedness through interactions - connecting to and buffering from other change episodes - is an important determinant of the continuity and change of the single marketing change episode's contents and processes.

Interaction driven marketing change contents

What is the nature of the change contents emerging in the interplay between the change agents and the moving structure? Building on the analysis of Pharmacia Biotech's change episodes, one important, tentative answer to this question is that the marketing change contents are determined in the interactional processes between the marketing change agent and the other actors mobilized in the process. In other words, change agents can only broadly plan what to do, what marketing actors, activities or resources to change and how, when or where to do it and why. When they start interacting with those who are to be involved in the marketing change, the change episodes will change. Change agents can set up very general and broad plans, guidelines and visions about the contents and processes, and about the contexts, before implementation. But only when the factual motivational, mobilizational, interactional and structuring processes of interactions are started does the knowledge of marketing change agents deepen concerning what to do, why to do it, how to do it and in what context to continue to implement the marketing change. Marketing content dynamics, their stability and change during the course of the change episode, appears to be interaction driven. Interaction processes are also the motor for all steps in the realization of the marketing change: for the development of concern, for the acknowledgement and understanding of the problem, for the planning and acting, and for stabilising the change.

This can be perceived as a discouraging notion for a model of marketing management as concerned with linear marketing planning processes. After all, the case seems to point to the fact that in any marketing change episode, the change contents are only partially stable over time, and the stability in contents is maintained only on a general level. Instead, a large part of the change contents and the details about change contents emerge and

develop in the interactional processes. In addition, emerging marketing change contents concerning e.g. promotion, products or place, sometimes even price, as divided in the bulk of marketing mix based models, are born within and are embedded in much larger packages of organizational changes. According to the case, the most important parts of the marketing planning procedures - the most influential planning steps for the marketing change episodes - become embedded in the interaction processes between the focal change agents and the actors that they mobilize. Planning becomes part of the motivational, interactional and structuring processes, and the overall legitimation of the change. The planned change contents need not bear much resemblance with the factual, enacted change contents.⁵ To the contrary, the interaction processes open up for flexibility concerning the modification of change contents, for learning about the context, and they open up opportunities to redirect the marketing changes towards other parts of the organizational network. The central parts of the development of marketing change episodes - the contents as well as the processes and the specific context in which they are implemented - seem to be determined not by the organizational hierarchies, but by the ongoing interactions between individuals, groups, divisions and companies in the intra- and interorganizational network.

Origin and result of marketing change: contradictions, tensions and ambiguities

Why do marketing change agents engage in interplays with their moving contextual structures, changing the present order of things? In one sense and with the perspective chosen, the answer is given; change is continuous, because the stable processes of ordinary, daily marketing action are the origin of this continuous change. The case description and the framework elaborated on suggest also that industrial marketing change agents' interactions with their moving contexts are connected to contradictions feeding into the overlapping networks making up the industrial context. These contradictions create tensions between ongoing marketing actions and the new emerging structure, resulting in marketing actions and change agents being surrounded by ambiguities. In a general sense, industrial network contradictions will provide a continuing source of such tensions and ambiguities, directing the attentions and actions of marketing change agents. Much of their interplay with their moving contexts serves to cope with - reduce, alter, avoid, etc. - their own ambiguities resulting from these inherent contradictions. The process is endless: actions to cope with these inherent characteristics of the system can result in tensions elsewhere in the system. Actions can reduce the change agent's uncertainties, only to make possible the redirection of attentions to other emerging tensions and new ambiguities. With this view, marketing change becomes an endless

⁵In accordance with Mintzberg's (1978) classification, there are elements of intended strategies turning into deliberate and realized strategies, there are intended strategies turning into unrealized strategies, and there are emergent strategies turning into realized strategies. (In: Mintzberg, H., "Patterns in Strategy Formation", *Management Science*, Vol. 24, pp. 934-948, 1978)

process. A marketing change episode will only be one of many possible delimitations of a continuous process to cope with contradictions, tensions and ambiguities.

Is this not an even more discouraging view of marketing management and change? Whatever is achieved by the marketing change agent in the interplay with the moving context, and no matter how well planned the change processes, the result will only be new contradictions and tensions in the industrial network. And change agents' reduction of perceived ambiguities will only be temporary, soon to be replaced by new. However, it can be assumed that in the inherent, intercontextual contradictions of industrial networks lie the very driving forces for marketing actions and change. In line with Benson's arguments, they can be seen to shape consciousness and actions to change the present order in systems, they define new limits of systems, and they enhance possibilities for reconstructing the systems.⁶ The marketing change agent-moving structure interplay is imbued with and surrounded by ambiguities, due to the ever changing character of industrial networks. Mechanisms for handling them, e.g. introducing stability and continuity, become a central focus for marketing management processes and change agents' interplays with the moving structures.

Dynamic temporal profiles of change episodes and multiple time contexts

When do marketing change agents interact with the moving structures of their contexts, i.e. what is the nature of the temporal relationship between marketing change agency and structure? It has been argued in the text that temporality in many shapes enters the interplay between the marketing change agent and the moving context. The "when" question not only embraces aspects of timing, when this interplay occurs, but also a number of other facets of temporality. Firstly, it has been argued that every marketing change episode will have its own temporal profile. In the interplay with the moving context, elements of this temporal profile will be both stable and changing, resulting in adaptations of marketing change contents (actors, interactions, activities, resources and norms) and change processes (interaction and realization processes).

The structure of the case and the arguments in the analysis of the case have also pointed to the fact that the interplay between the marketing change agent and the moving structures are reflected in actions to cope with contextual structures and processes of different temporality. With the use of the terms "concurrency", "transition" and "evolution", it has been suggested that in the interplay, change agents handle and act in changes in the near present. They also act in transition processes when the system is moving from the

⁶Benson, K., "Organizations: A Dialectical View", *Administrative Science Quarterly*, , Vol.22, pp.1-21, March 1977

immediate past, into the present and towards an emerging future structure. And they handle and act in the long-term processes of historical evolution in the context.

In summary, the Pharmacia Biotech case has forced us to less simple formulations about marketing management and change in complex industrial organizations and networks. Rather than presenting a substantive theory of the conditions under which marketing change agents interact with the moving structures of their context during the course of a marketing change, we have chosen to provide a number of suggestions and guidance regarding the selection of new theoretical problems, problem areas and research questions.

The discussion above tries to reach beyond a simple critique of the limitations of the bulk of rational-functional marketing management literature. It attempts to suggest a different way of approaching a different kind of organizational rationality. This has meant taking a step back, trying to better understand the complex industrial realities in which humans become involved and committed to marketing changes, even if it means undermining some of the "realities" embedded in dominating managerial models of marketing. After the next section, we will discuss some paths for future research.

MARKETING CHANGE AGENCY AND MARKETING CHANGE; MANAGERIAL ISSUES

In the attempts to generate ideas about the marketing change agency-structure interplay, some general managerial areas and issues have taken shape. In the contradictions, tensions and ambiguities surrounding industrial marketing management and change, and in the understanding of the limitations that they give rise to, lie the multitude of possibilities meeting marketing change agents. The drift in the descriptions and analysis has been in several directions. Building on the case and the analytical and theoretical discussions, we will elaborate on five general issues. We will not provide a set of clearcut, normative suggestions for managerial action. However, we believe that in the issues and areas discussed are also embedded general implications for managerial action:

- 1.Coordinating concurrent change processes
- 2.Managing stability in marketing organizations and continuity in marketing change processes
- 3.Managing the change of change logics
- 4.Using contradictions, ambiguity and ambiguity about contradictions
- 5.Handling concurrent processes, transitions and processes of historical evolution

The first general issue connects to the first perspective discussed in the previous section. With a view of marketing change agency-structure interplays as involving a collective of change agents acting concurrently in interacting change processes, a central managerial area concerns actions for linking and coordinating different change processes, including some of the change agents' temporal orientations and contextual, network orientations. The second managerial issue relates to the perspective on marketing change episodes and their contexts as morphogenetic and to change contents as driven by interaction processes (2, 3 and 4 in the previous section). Given these dynamic perspectives on marketing change, management of marketing change becomes a matter of acting on and using various forces of stability. And the managerial means and ends of handling various forms of stability in these moving contexts and dynamic change episodes will be interaction processes. The third issue connects to the second, and relates to managerial aspects of handling interdependency between marketing change and stability (connecting to the discussion in the last section of chapter 9). The fourth managerial issue concerns the managerial consequences of viewing the marketing context as encompassing contradictions, tensions and ambiguities (perspective 5 in last section). Lastly, the fifth issue brings up managerial issues and actions from a temporal perspective (relating to 6 in the last section).

Coordinating concurrent change processes

A radical marketing redirection is a collective process with several change agents, each having its own rational intentions, goals and change logics. A change in the organizational actor structure and the interactions between channel actors can have its own change logic, while a process to reorganize and make more efficient the logistical, distribution activity structure can have another. In addition, there can be processes and episodes whose intentions are to reorganize - extending or reducing - the resources and activities related to the products and services that are to be transferred to end users. While the overall intentions of such a reorganization are to both improve efficiency and effectiveness, there can emerge - temporary or more permanent - tensions and contradictions between the different rationalities of each of the loosely coupled change episodes. There will emerge needs for internal and external coordination. Synchronizing time orientations and temporal change profiles is one way to reduce hindering contradictions. Synchronization of structural network orientation ("network theories") through interactions (mobilization, interaction, structuring of interactions) is another. For example, synchronization of structural orientations towards the relationships with a set of chosen key account customers can allow many different goals and change logics concerning different marketing and distribution actors, interactions, activities and resources to develop side by side and in a supportive interplay.

However, in the long-term perspective every such synchronization in order to cope with processual and structural contradictions in the marketing organization will only create temporary continuity in the process of structural change. New tensions and contradictions will emerge, dispersing again the allocations of marketing change agents' attentions and creating new tensions to cope with, and hence, new needs for synchronization. Synchronization and coordination of temporal and structural orientations can thus be a way to increase continuity and predictability in structural change processes. Actors can enact and relate to, not a fixed structure, but to a moving structure with more or less clear directions in these movements. A central issue in the management of marketing change will concern coordination *between* change episodes at different levels. It will encompass various means to coordinate the courses of change processes; finding actions which avoid disruptions by sub-optimizing and contradictory change episodes, and which amplify ongoing change processes. Interaction processes will have a central role in the set of managerial actions used to link activities, resources and actors - i.e contents and processes - in ongoing change episodes at different levels in the marketing organization and in different parts of the industrial network. Developing linkage mechanisms for coordinating change agents' various temporal and contextual network orientations will have a central role in this set of managerial actions.

Managing stability in marketing organizations and continuity in change processes

In a constantly moving context, every marketing change will also need to encompass actions and interactions to handle the long-term stability of structures and the continuity of structural change processes. The management of marketing change will need to encompass actions and means for breaking with while building on stable structures, for using the existing stability in order to introduce a change, and for creating new forms and logics for the stability in the marketing organization structures. The management of marketing change becomes an issue of relating to different types of structural stabilities, i.e stabilities with different historical backgrounds. Managing and handling stability can be a matter of confronting - via intense interactions - new interaction norms, with stable, historical norms for how interactions and contacts should be handled, and which have been established during decades. It can also be a matter of action to redirect the ongoing, stable processes of change, introducing new logics for structural stability and supporting the system transition. Making use of the stability that exists in one part of the system can be a prerequisite for being able to introduce a major marketing change in another. The use of such structural stability can entail deliberate attempts to handle this interdependence between structural stability and change.

As one step towards introducing new structural stability and new logics for this stability, marketing change agents need to take actions to make new changes stick. The creation of

continuity and a certain degree of predictability in the ongoing processes of structural change can be the origin of a new, stable, institutionalized structure. Parts of the change contents and change processes of the episode are made to stick, forming the basis for the new, stable marketing system structure. Persistence in behaviour, encompassing also modes for buffering from other change processes and "inaction" (which need not necessarily stand in contrast to the first managerial issue above), coupled with openness to constantly review and alter parts of the change contents is the general way of coping with both stability and change, embedded in a complex moving context.

Managing the change of change logics

Marketing reorganizations can become peaks of change in the history of a company; they can bring about major changes, touching all levels of the marketing organization. They can be major changes changing the functioning of the marketing operations. Changes can be rapid and come in sudden outbursts, and evoke mobilization among a multitude of participating, organizational actors. There is a major break with the stability of institutionalized marketing traditions.

When these changes touch the very core of marketing functioning, they might also imply and require a change of the logics of changing. As part of the managerial issues, involved actors will have to be presented new modes of changing. It can be a matter of putting marketing changes at the very core of a company's strategic change process, letting exchanges with customers become the explicitly stated driving force and logic for changing. The management of marketing change could also be a matter of introducing routines for making successive adaptations and marketing changes a permanent, ongoing process in the forefront of a set of actors' functioning. The meta level of marketing change thus encompasses actions to introduce new ideas, maybe new traditions for changing. A change of change logic can involve going from a tradition of successive, localized variation to a tradition of rapid, centrally controlled and systemwide, transformational changes, or vice versa (see figure 9.1). Changing the logics for the way stability can be used to support change can be one of the major managerial challenges during the course of a major reorganization. These new mechanisms can be allowed to emerge in a number of different ways. For example, company mergers in which traditions are fused can be the origins of changes on this meta level. A radical marketing change will encompass a certain degree of meta dynamics, in which the underlying principles, ideas, and hidden traditions for changing (as well as for retaining stability) have to be made visible, before they can be altered.

Using contradictions, ambiguity and ambiguity about contradictions

A reorganization of marketing operations requires a preparedness to act on the many structural contradictions and the perceived ambiguities that will result from a break with the stability of the past. Complex, industrial marketing systems in change will harbour a number of such structural contradictions, within and between different overlapping networks. Change agents managing marketing change need a repertoire of responses to handle, not always some clearcut structures but the structural contradictions and tensions emerging during the course of a change episode. The contradictions will drift within the network due to actions and so will attentions and the perceived ambiguities by the change agents. Due to different positions in the network, contradictions will not be visible in the same ways to change agents. There will be a certain degree of uncertainty among change agents concerning what structural contradictions to handle and react to. But this need not be a negative aspect of marketing change agency.⁷

Understanding these ambiguities is necessary not only for understanding and predicting organizational choice behaviour, but also for improving it (Cohen and March, 1974; March, 1978, 1978, 1984). On the one hand, intelligent tactics within ambiguous worlds require an understanding of ambiguity even by a decision-maker who is endowed with unambiguous goals and a clear comprehension of history...Such strategies are characteristically ways in which clever people can exploit ambiguity for unambiguous ends...It is argued that ambiguity is not only a fact of life, thus a necessary context for action by rational actors, but also often a normatively attractive state.

By directing attentions to structural contradictions, marketing change agents can exploit the ambiguities that can emerge as to how these contradictions should be solved. By using them and allocating attentions to structural inconsistencies in the marketing organization, change agents can allow actions to emerge to cope with uncertainties, trying to solve the contradictions. A central issue for the management of marketing change can be to find ways for using and building on the ambiguities and contradictions, allowing for clearer structures to be developed and coping with the negative effects of structural contradictions. These managerial actions for coping with structural contradictions and ambiguities in the interactional processes between actors can allow clearer goals about the future preferred marketing system structure to develop. It can allow for partly competing, partly contradictory marketing goals and rationalities among a collective of change agents to be synchronized, coordinated and adapted.

Handling concurrent processes, transitions and processes of historical evolution

Marketing change processes and their embeddedness in moving network structures cannot be separated from the fact that they also extend over time, are situated in time and are directly concerned with the functions and structures of time. Breaking down this diffuse time structure into three simple components, the preceding discussion entails the argument that marketing actors interact with the fluid network structures of the immediate

⁷March, J.G., *Decisions and Organizations*, Oxford: Blackwell, 1988, pp. 14-15

present (handling concurrent structural change processes), the immediate past and future (handling structural transition processes) and the long-term history (handling long-term structural evolution). In brief: marketing management and change is about acts to handle concurrence, transition and evolution - and about doing it more or less concurrently. Marketing management will need to encompass both adaptations and attempts to control (through coordination) several interacting structural change processes of the immediate present; it will also need to encompass attempts to break with and relate to structural transition processes; and it will need to encompass sets of actions to break with and relate to the long-term structural evolution of the context. Which of these actions will also have to change during the course of a marketing change process. Marketing management will need to encompass a repertoire of responses and a preparedness to handle all three, and to manage and act on shifts in the dominance between them.

Due to continuous, contextual changes, marketing change agents' time horizons will have to shift during the course of a longitudinal change episode. Contextual changes can remove the actors further from the initiation of a change, or can place the planned initiation closer in time. Responses to changing structures in the immediate present resulting from concurrent change episodes can partly redirect attentions, time perspectives and time orientations. Managing marketing change will need to encompass actions to influence and coordinate actors' time horizons as well as viewing directions; forward, backward or to the present. People responsible managing need a repertoire of actions to influence other actors' time perspectives in order to be able to coordinate planning and implementing new marketing behaviour. In interactions people influence each other's reflections on the past, how the past influences what is done today and how it relates to what is planned for the future. Exerting control over these time perspectives and the time horizons will be an important part of interactional processes, and thus, an important instrument for directing people's attentions when managing marketing change.

In summary, the five managerial issues above provide only general guidance regarding the formation of managerial alternatives for realizing marketing change in complex industrial organizations and networks. They are suggested principles, emerging from the case study and from the discussion, providing guidance for developing alternative, managerial perspectives on industrial marketing management. In developing the marketing management implications of these principles, much empirical and theoretical work remains to be done. The preceding theoretical issues can, and should, be perceived as fragmentary; they do not provide a theory for introducing any (likewise fragmentary) marketing change. Every marketing change emerges and develops in a specific context,

and what is suggested in the theoretical and managerial discussions above is one general way of approaching and understanding industrial marketing change in context. The discussion claims to pose new questions to industrial marketing management, and not to resolve or dispose of the fundamental ambiguities that will surround the industrial marketing actors in situations of change.

REFLECTIONS ON CONTINUED RESEARCH

The selection of theoretical and managerial issues above are suggestive statements emerging from the processes of linking the theoretical with the empirical. None of the issues constitute clearcut answers to simple, clearcut questions. They have in their turn raised a number of new concerns and questions. The process of inquiry and resulting text is only one (intermediate) result of the attempts to answer it, another important result will be the new questions that are raised.

The theoretical and managerial issues raised in the preceding two sections, including the discussions in the preceding chapters, contain the seeds of a number of new questions. To end this section we will bring up a number of questions and issues which have come to preoccupy us during the process of concluding the text. Some of these have been there for a long time and have remained; others have emerged quite late in the process, during the concurrent processes of concluding the case study text and finishing the analysis. Some of them connect clearly to the delimitations made at the outset and during the study, e.g the choice to take the viewpoint of centrally placed, HQ positioned, marketing change agents in the case study. We reflect on five theoretical and empirical issues and on one methodological issue, which provides the link to the last concluding notes on method:

1. Concurrence in marketing channels and industrial networks
2. Timing and the temporal distribution of sets of marketing actions
3. Overlapping inter-personal networks in business network contexts
4. Network overlaps, contradictions and links to marketing change actions
5. Inter-regional marketing coordination
6. Marketing research and the forms for case study narratives

Concurrence in marketing channels and industrial networks

What are the consequences of *concurrence*, if transferred to a broader industrial network context? And what are the consequences of concurrence seen from the perspective of the companies in a vertical marketing channel? If change processes in general in industrial networks (like the marketing change processes depicted in the case study) develop concurrently and connect during certain phases of development, and if important outcomes of change in networks can be related to this, it will have consequences for the actions of companies in networks. When, where, why and how do concurrent position changing processes of several different companies in an industrial network become

interdependent? This study has elaborated on some issues connected to concurrence. If an important determinant of the outcome of a position change in one company is the way in which it is related in the present to other *ongoing* position changes in a wider network of companies, there is a need to probe deeper into these connections. In this is included also studying the mechanisms for buffering from concurrent change processes. To what extent and in what ways can firms deliberately avoid being affected by concurrent changes in the network context? Can the timing - the temporal localization of links between ongoing position changes - be affected in such a way by the actors that the general outcomes of the interdependent, concurrent position changes become predominantly positive?

Timing and the temporal distribution of sets of marketing actions

To the questions of concurrence belong questions of *timing*. Given a constantly moving context, how do marketing actors - individuals, groups or companies - monitor ongoing changes, and what are the mechanisms behind decisions concerning *when* to enact and maybe amplify these changes? The question of timing of actions in constantly moving industrial networks is important for understanding the functioning of networks. Although most activities can be assumed to be embedded in routines it can be assumed that industrial companies, e.g in a vertical marketing channel, have various means of identifying ongoing changes in the network. *When* they then act on these changes through the relationships with other companies is important for the positioning process. However, there will always be some lead and lag affects and dito actions when reacting on changes. Sets of actions are distributed in different ways in time. And different units in a company, with different types of relations to actors in the external network will probably have partly different requirements for how reactions and amplifying actions should be distributed over time. An important empirical, descriptive, as well as theoretical problem in industrial marketing is to identify the temporal distribution of such sets of actions in the industrial network.

Overlapping inter-personal networks in business network contexts

This study has used concepts and thinking from social interaction theory. It has been indicated that inter-personal interactions, cutting across organizational boundaries in marketing systems, are central in processes of marketing change. Studying the micro dynamics of interactions of larger social *inter-personal networks* cutting across the boundaries of e.g vertical marketing channels from the producer all the way to the end-user, and putting them in the larger whole of an industrial network of companies could add knowledge on the interdependencies between macro changes and the micro dynamics of inter-personal networks in marketing contexts. The emergent properties of industrial marketing organizations can probably be better understood if constantly new ways of putting the different sets of micro dynamic interactions into different sets of the larger

whole of the industrial business network are elaborated on. The social reality of marketing can be said to consist of intersecting nets where individuals are part of several groups, cutting across the formal borders of companies. In industrial marketing organizations, different, inter-personal "distribution and logistics", "new product sales", "service support" networks intersect within and across the boundaries of companies within business networks. Individuals can belong to several of these, depending on situation and purpose. Identifying these networks and putting them into their business network context - studying how the processes in one inter-personal net affects the processes of the other, and how these processes become interdependent with the position changes of companies in a wider company network context - could be a way of learning more about changes in part-whole relations and the ways in which marketing organizations change.

Network overlaps, contradictions and links to marketing change actions

It has been suggested that *contradictions* of various types will always feed into industrial marketing organizations and overlapping industrial business networks. It has also been suggested that these might be important driving forces for change, creating ambiguities and tensions in the ongoing actions of people, who act to cope with these contradictions. It has been argued by Benson (1977) that various contradictions in and between organizations are important because they may "activate the search for alternative social arrangements".⁸ Much work remains to be done including studying *how* patterns of contradictions move within industrial networks and *when* they are enacted by the industrial actors in order to investigate further *how* and *why* this search and these actions are activated in industrial networks.

Inter-regional marketing coordination

More specific research questions have also emerged in the process. The empirical case study ends in the middle of a new phase of development in the company when concerns are raised concerning the next coordinative step in the marketing reorganization process. How do companies achieve *inter-regional coordination*, given an increasing global presence and global sourcing strategies? An important managerial and organizational marketing problem is how to achieve this coordination. Will it encompass elements of the processes of moving from a country based to a regional marketing organization or will there be different types of problems connected to this process? What can be expected to be the next step, following global distribution and inter-regional coordination of marketing operations? What will be the consequences for the local supplier-buyer relationships of such changes in global, inter-regional coordination? The question

⁸Benson, K.J., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, March 1977, p.5

concerning the dynamic, interactive part-whole relationships changes character over time in industrial marketing contexts. How and why these changes take place in part-whole relations is an issue which can be defined and delimited in a number of new and different ways.

Marketing research and the forms of case study narratives

The last reflection and suggestion concerns method and provide a link to the concluding notes on method. In the process of trying to draw the empirical, theoretical and methodological threads together and present the single case narrative of Pharmacia Biotech and its change processes, one of the major lessons learned concerns the process of finding new forms of presentation. In the form of the single case narrative lies some of its major results. Building on the assumption that the search for innovative forms for case study presentations in marketing should be a central part of the development of methodology,⁹ it is here suggested that explorative marketing research could gain from approaching history and sociology. Leaving behind the dichotomy of "events" and "structure" (as manifested in "narrative" or "non-narrative"/theoretical cases) and given a strive for a synthesis,¹⁰ there is a need to develop also the narrative element of this synthesis. Building on insights from our marketing study (including some of the more obvious delimitations made) we connect to discussions on historical writing,¹¹ and to connections between social sciences in general and history.¹² Different types of marketing research problems (using historical exploratory/descriptive/explanatory case narratives) can be combined with different types of narratives. Case study research in marketing needs to approach the intertwining of time and narrative.¹³

Our decomposition of time (which was necessary for understanding change) followed a certain logic.¹⁴ However, reaching an understanding of the flow of time in marketing organizations could call for a number of other narrative approaches. For example, a penetration of the historical influences on the present marketing functioning might call for narratives which in an even more clear-cut way leave chronology and the sequential structure of events in the past and in the present. In addition, if our story of Pharmacia Biotech, according to early plans, had taken the perspectives of also other channel actors

⁹Yin, R.K., *Case Study Research. Design and Methods* (2nd ed.), Thousand Oaks, Ca.: SAGE Publications Inc., 1994

¹⁰See for example Burke, P.(ed.), *New Perspectives on Historical Writing*, Cambridge: Polity Press, 1991, chapter 11

¹¹Ibid

¹²Burke, P., *History and Social Theory*, Cambridge: Polity Press, 1992

¹³This means that case study research could gain from approaching also philosophical discussions on the matter, e.g: Ricoeur, P., *Time and Narrative* (Vol.1-3, transl.), Chicago: The University of Chicago Press, 1984 (vol.1), 1985 (vol.2), 1988 (vol.3)

¹⁴(In retrospect it was observed that the division into several temporal perspectives can be found in other narratives, e.g. in: Braudel, F., *The Mediterranean and the Mediterranean World in the Age of Philip II*; Engl. transl., 1972-73).

(subsidiaries, customers etc.) on the focal marketing change processes, this could have called for a particular logic of the narrative structure which combined the need for different actors' viewpoints with the need for a decomposition of time. Continued research on industrial marketing processes could advance the case study methodology not only by experimenting with the narrative form and being inventive, but also by approaching it on a more general level, discussing the links between research problems, theory and *types* of narrative forms.¹⁵

¹⁵For example, historians have begun to collect inspirations from literature and film theory when experimenting with narrative forms.

NOTES ON METHOD

A single case narrative will be subject to innumerable choices of research paths, directing attention to processes rather than end products and results. In the often blurred boundaries between the object and the subject of research, a structured case study text successively emerges. The stability and change of methodological choices, the process of inquiry, the contents of the final text, emerge in a stable and changing context. Inevitably, there will be strong links between the study process, including the way it will be described, and the process under study. To be more specific, the seemingly tedious efforts to reorganize Pharmacia Biotech's marketing organization as described in the final text - and as coupled to "ambiguities", "tensions", "contradictions" etc. - have links to the research process. Research is a matter of coping with the ambiguities, tensions and contradictions of learning and of finally creating a story and a text.

Our story of Pharmacia Biotech's reorganization and reorientation does not reproduce "what actually happened" in the organization during the turbulent years of the early 1990s, nor in the historical development of the company. What is presented in the narrative is a representation by a particular narrator from a particular point of view. The final text has emerged from a study process which has sometimes diverged far from the (often rationalistic) instructions given in textbooks on case study research. This is an attempt to communicate the uneven and unpredictable process of research which has generated the text, with several stops, reversals, back-tracks, and both deliberate and undeliberate choices. In this text is included a description of how the research has been conducted. In this description lies also the attempt to make the narrator visible, to be self-reflective, in order e.g. for the reader to be warned that what they are reading is one very particular version of a story.¹⁶ As will be described, from this process a number of other variants of the story and its focal problem might have resulted.

Building on a constructed plot, we restart and create a new and related, but different, story and text; a condensed, self-reflective single case narrative and interpretation of the research process. What we here choose to include as central in this methodological story of an emerging story and text, reflects ideas, thought patterns, theories, empirical insights, etc. found elsewhere in the text.¹⁷ Our methodological stories, like all stories,

¹⁶Burke (1991) states about historical writing and research: "Historical narrators need to find a way of making themselves visible in their narrative, not out of self-indulgence but as a warning to the reader that they are not omniscient or impartial and that other interpretations besides theirs are possible." (In: Burke, P.(ed.), *New Perspectives on Historical Writing*, Cambridge: Polity Press, 1991, p.239)

¹⁷Being central in the research process, we will concentrate on the emergence of the case study text.

will be coloured by our preconceptions and ambitions.¹⁸ Building on the earlier assumption that "timing is everything", and being written late in the study process, this methodological story will inevitably be coloured by the methodological, theoretical, and empirical insights gained during the process, in addition to the present¹⁹ ambitions to present a coherent text and to unravel links between the object and the subject of study. As regards the timing of writing the methodological story, and as will be noted from the references, the comments will also be coloured by the emerging attention directed at texts on historical narratives and historical case writing.²⁰ This is the starting point as we present one condensed version of the story, reflecting only parts of the many endeavours to present a final text.

Connecting the description of the study process with the concepts and viewpoints supporting the processes under study, these are some of the underlying ideas shaping the structure and contents of our methodological story: A text of this kind will be coloured by the context in which it emerges, including the way this context changes during the course of the study process. A focal research project will be difficult to separate from the context of other ongoing projects. There will be both stability and change in the study process, concerning both the factual interactions of the researcher (in the research community and in the organizational study context) and as concerns the realization steps in the process. The process is born in a context and transforms in a context, and the text and the research problem will bear marks of its emergence in a historical context. During the course of the process there will be both stable and changing elements in the emerging contents of the text. Over time, there will emerge important contradictions in the writing process (leading to ambiguities for the researcher), between the emerging structure - encompassing and reflecting theoretical ideas - and the successively accumulating narrative contents - the empirical insights.²¹ These contradictions lead to change actions and transitions; new paths are successively chosen for presenting the text. Contradictions and the choice of new paths also emerge as a consequence of breaking with parts of the researcher's history. Breaking free from and leaving behind some of the old theoretical ideas and old empirical material becomes a central, difficult part of the process.

¹⁸Popper (1986) states: "We cannot free ourselves of past experience and we enter into a new study with specific ambitions. The way out of this difficulty is to introduce a 'preconceived selective point of view into one's history; that is, to write the history which interests us' .", (In: Popper, K., *The Poverty of Historicism*, London: Ark Paperbacks, 1986, p.150)

¹⁹July 1995

²⁰As with all social science, these influences emerge from and within a social context. Important, critical comments on the first version (August 1995) of these notes on method have been given by Anders Lundgren, Stockholm School of Economics. Among other comments, he has pointed to the importance of "coherence" and "persuasiveness" in the writing of historical narratives of this kind.

²¹Burke (1991) states about the dispute between "narrators" and "analysts" in historical writing: "One might begin by criticizing both sides for a false assumption which they have in common, the assumption that distinguishing events from structures is a simple matter." (In: Burke, P.(ed.), *New Perspectives on Historical Writing*, Cambridge: Polity Press, 1991, p.237).

In contrast to the case narrative, the methodological story is chronological and it is structured around important breaks in the process, resulting in new paths and new structures of the text. (To mark the fact that this story, like all methodological presentations, is a narrative where the reproduction of "what really happened" will be a difficult goal to achieve, we try to make the narrator more visible and linked to the rest of the text by introducing him as A.)²²

THE EMERGENCE AND CHANGE OF A SINGLE CASE NARRATIVE

The emergence of two industrial distribution studies and contacts with Pharmacia

In 1985, the Marketing Technology Center (MTC) in Stockholm is contacted by the Swedish Association of Mechanical Engineering Companies (Mekanförbundet). MTC is given research money in order to investigate the dynamic area of after sales services in industries. The strong bonds between MTC and the Marketing Department at the Stockholm School of Economics result in the latter taking over the operative responsibility for the project. After various changes, A becomes responsible for the actual project work, collecting data and writing the final reports. Among other things (seminars, working papers, etc.), it results in a report with various perspectives and cases on changes in industrial manufacturers' after sales service operations.²³ The brief case studies leave a number of questions and vaguely formulated ideas concerning marketing as an intra- and interorganizational problem: Why, in spite of the obvious progress in the area (including substantial profits), is it so difficult for industrial manufacturers to reorganize the long-term, continuous service support activities in relation to customers, while concurrently changing the coordination with other, internal units and their activities: sales, distribution and logistics, production etc.? Being linked to a growing school of thought, the network approach to industrial marketing, A has already entered the study from the outset, seeing the organizational world of industrial marketing as an intra- and interorganizational network, and with the ambition to combine the empirical findings with theoretical insights from this growing paradigm. Being influenced also by early suggestions in distribution research that one of the central topics for distribution research

²²This can seem like a contradiction and paradox, but it is done also to avoid the problem that the use of "I" or "we" might cause a writer of a methodological story; to convey to the reader a picture of the omniscient, impartial and all rationalistic researcher separated and detached from the rest of his own text.

²³Andersson, P., *Eftermarknad* ("Aftermarket"), Uppsala: Mekanförbundets Förlag, 1988

should be the study of management of change in these systems,²⁴ A has also entered the study with the ambition to study such processes.

At the same time, a project at the Department on the development of distribution in the global, automotive industry is taking shape towards the end of the 1987-88 (started earlier), being part of a larger, global research program initiated and managed by M.I.T.²⁵ A becomes involved with the project, which focuses on a number of different areas of progress and change in car distribution. Among other things, the project comes to raise questions concerning manufacturers' roles and problems when trying to change and control a multifaceted set of product and service activities through a network of distribution actors (manufacturers, importers, dealers, customers, third party actors, etc.).²⁶ The general notion that changes in marketing operations are complex organizational processes taking place in complex networks becomes stronger. An overall area of interest with different facets is beginning to take shape: the organization of change processes, large industrial marketing systems, intra- and interorganizational networks, complex activity structures with a diverse set of products, distribution of products and services, interdependencies with changing technologies...

While the automotive distribution project proceeds, in 1990 the personal contacts gained earlier in the after sales service study leads A into contacts with a number of new companies, despite the fact that the formal project is terminated. Via one of these old contacts, a marketing and organizational consultant in the area (N), who is about to enter a change project in Pharmacia, A comes in contact with a newly appointed after sales service manager at Pharmacia BTG (I). The informal contacts with N, I and with the managers of technical services, J and U of the emerging task force group, leads e.g. to A paying a number of visits to the Uppsala organization. N who has been working for years with F, a former consultant in Pharmacia who is just being appointed the new executive manager for Pharmacia LKB Biotechnology, links A to F at one occasion, legitimizing A's presence in the organization. With his background in the after sales study, A is invited in late 1990 to follow the reorganization process and the establishing of a new After Sales Division in the company. An agreement is made that A should participate in one internal meeting for executives and other divisional managers in the Uppsala organization, describing some of his general results of the earlier after sales study. A becomes part of the process of internally legitimizing the operations of the new After

²⁴E.g. Gadde, L-E, *Distributionsstrategier på producentvarumarknader*, Stockholm: Marketing Technology Center, Report no. 13, 1980

²⁵*International Motor Vehicle Program*, Massachusetts Institute of Technology, USA

²⁶Reported in various conference papers, e.g. Mattsson, L-G., Andersson, P., Gadde, L-E. and Öberg, M., "Reorganizing Distribution for Total Performance - The Manufacturing Viewpoint", *IMVP International Policy Forum*, May 1989

Sales Division. In the spring of 1991, A participates in one of the new division's international meetings in Copenhagen. A decides to make a case study, complementing the cases of the earlier studies. An overall research project with several comparative case studies is decided on, with a particular focus on organizational change processes. The focus is to be on industrial manufacturers' management of marketing change, with a specific empirical focus on only the so-called after sales service operations. Theoretically, the study should focus on aspects of managing change in these inter- and intraorganizational network contexts...

Entering the organization and starting the case study process

At the time of entering the organization, Pharmacia is in the early start of a number of interconnected reorganization processes, including integration in the Procordia conglomerate. For A, it is in some respects very difficult to make any sense of the many concurrent change processes that the new After Sales Division becomes involved with. The planning and tentative implementation processes are interrupted, leaving also reduced time for A's interviews. A becomes aware that this is far from the only change process taking place in the organization. For example, a new organization called "Biosystems" is discussed internally during the spring and summer of 1991, affecting the after sales division's work. A number of new questions turn up: Where should the boundary around the Pharmacia case be set? What are the focal events and processes? Is *this* really the managerial reality that should be investigated and understood, and what have these other organizational processes to do with industrial marketing? What is this really *a case of*? Despite a number of concluded interviews, there is growing concern in A that this might be too difficult a task. A does not understand what is happening in the organization.

Despite uncertainties and ambiguities about the case and the study process, A continues to visit the organization. Despite, and also because of the difficulties to come to grips with his own understanding of the case, A continues to follow the task force group's work. The contacts with N, I, J and U are becoming more regular. Subjects for the round of interviews in spring 1991 are the managers of the after sales service group. At one occasion, they also lead A into contacts with E, the manager of ongoing distribution change projects.

More specific questions concerning the actual steps in the task force groups' reorientation process and the way that its members perceive and act in their changing inter- and intraorganizational structure emerge from the unstructured character of the first interviews. A needs to send back some interview protocols to the interviewees for checking - there are a number of uncertainties to check - but the intense, continuous contacts with e.g. the after sales task force group, make it possible to successively go back

and check the given interview data during the direct contacts. A's close contacts in the first round of interviews require methods for collecting data while participating in the internal discussions, seminars, etc. A data bank of protocols from semi-structured and more open interviews and internal meetings and seminars (some tape recorded and processed) is beginning to be built up.²⁷ In internal discussions with managers in the company questions concerning confidentiality are sorted out. The emerging stability in the contacts helps.

Due to the timing of A's entry into Pharmacia LKB Biotechnology, immersion into the organization is difficult. Building the necessary relations in the company, allowing A to be both observer of and participant in the reorganization processes is problematic. Interviewees are simply too busy handling both the many endeavours to reorganize and their own daily routines or, alternatively, people are leaving the organization. A is beginning to have doubts about the possibilities to ever conclude a case study of Pharmacia BTG. During the spring of 1992, these doubts are confirmed; A's stable contacts with I and later with J and N are broken as they leave the organization. U remains the important link into the task force group. A has to resume and restart part of the legitimization and positioning process.

Leaving the previous case studies

Meanwhile, from the internal discussions at A's research department of A draws the conclusion that attempts should be made to include project cases from the prior studies in the total research. A decides to make an attempt at making a comparative study, putting together empirical cases from the preceding and ongoing studies, linking it to the emerging interest in strategic, marketing change and reorganization processes. However, in the course of mapping the Pharmacia case, the decision is changed, and for one major reason; A still cannot make sense of what is happening in the Pharmacia organization, why people behave the way they do during the course of the change processes. A is captivated by the complexity of the processes.

Due to the insights from the after sales and distribution projects and their tensions with other ongoing organizational changes (Biosystems) in the Pharmacia case, A begins to see that a process of strategic marketing reorientation entails much more complexity and diversity than A's earlier conceptions of it. A simply begins to lose interest in earlier

²⁷A list of the primary and secondary sources used is provided in the appendix of the case book. A number of additional printed sources were obtained and additional personal contacts were taken. The first round of interviews was successively complemented with participation in various internal meetings. Following the after sales episode, it was possible to check at each contact, data collected during earlier contacts. This was in the first stages made part of the informal contacts. At a later stage when several events had been linked in descriptions, interviewees were also given the opportunity to give comments on written accounts of longer sequences of events.

studies and becomes captivated by the, in many parts, incomprehensible, organizational endeavours of reorganizing and reorienting the company. People in the organization also suggest that A goes back and studies the history of the Pharmacia Corporation, otherwise it will be very difficult to follow and understand the present changes going on. In contrast to the earlier cases which have had a very limited, temporal focus, this suggestion paired with growing ambitions to more explicitly introduce history and temporality as possible explanatory factors in the Pharmacia case proves much more complicated than expected. The first "serious" contradiction appears between the contents and structures of the prior cases and the complex, emerging structure of the Pharmacia case. Without taking any clear decision on the matter, A is beginning to leave behind the earlier empirical case studies, spending less and less time on the texts. The theoretical viewpoint and the idea to study strategic marketing reorganizations from the point of view of an intra- and interorganizational network perspective remain. A single case narrative is beginning to emerge.

Towards the first version of a story; three parallel processes

In the "new" empirical study emerging, intentions and research focus are directed at processes and on the temporal dimension of industrial marketing reorganizations. Behind the complexity in Pharmacia, there seems to be, as A sees it, an interesting story to tell; there is the problem of understanding and making sense of the embeddedness of these organizational change processes. But what story should be told? And what is the plot of that story? A cannot come to grips with his own understanding of the context dependency of the studied process, for example, why do the change contents and the planned change processes have to be altered and changed this way during the course of the process?

Complementing the unrealized theoretical ambition from the earlier studies to connect, from a processual point of view, marketing and distribution theories with a network view, A becomes immersed during 1992 and 1993 in history, strategy and strategic change theories, and organization theory. Many of these are recommendations from researchers at the department, but more inspiration is successively coming from reading texts outside the marketing area. In 1993, A combines the new theoretical insights with readings on dynamic social interaction theory. Concerned with the lack of marketing theories which focus on marketing reorganization processes, the interest in micro sociological thinking is aroused. Many of the problems of coming to grips with the change processes in Pharmacia concern people's and group's ways of interacting with and changing their interactions with other actors. During this period, there is also a growing concern with a much more philosophical question. What is change? Via the literature in micro sociology, A comes in contact with more macro oriented literature, some of which is specifically focusing the problems of understanding why macro

sociological systems change or remain stable over time. Within the realms of an emerging pluralistic approach, the focal problem area remains stable and the realms of a network view of reality theories on the micro dynamics of interactions, perspectives on social change, and views on managerial change agency are successively being added to the theoretical reasoning.

During this period, A becomes involved with a new, minor research project. In collaboration with a researcher at Uppsala University, H, A starts a minor project, studying the change of distribution routines in long-term relationships between two companies in the building construction industry. The project is dissolved but a number of ideas come out which later will become part of the framework for the Pharmacia study; marketing and distribution reorganizations as connected to various ambiguities for the involved change agents, and the problems of marketing organization change as connected also to problems of changing various implicit norms embedded in long-term business relationships.

The **first version** of a story, identifies and describes three parallel marketing change events, later renamed "change episodes", 1989-1992: 1) an after sales service project, concerned with the reorganization of service activities, 2) a distribution project, whose aim is to reorganize the company's physical distribution and logistics activities, and 3) a regionalization project whose aim is to reorganize the company's global net of marketing organizations. Via contacts with C in the management group, A in 1992 comes in contact with persons engaged in a reorganization of the European marketing organization. Later, U-n becomes a link into this project. Satisfied with the finding that marketing reorientations cannot be narrowed down to one easily integrated episode, the intention and aim is now to present the case as three parallel episodes, three separate marketing change processes. A has now found what he believes to be important clues to the plot of the story, but he does not know how to proceed.

There remain a number of uncertainties and problems which cannot easily be handled by, and incorporated in, the existing story (-ies). The emerging empirical evidence of a wider contextual and historical dependency, including also dependencies between the three separate events, and the present structure of the case, are not coherent, in parts even contradictory. There seems to be much more to the story than three separate marketing change events. They actually lack a story and a plot which links them in, at least, a loose causal order. Empirical evidence also point to several unsolved problems and ambiguities: the observed change processes intersect; alterations to people's behaviour in the marketing change processes are partly explained by organizational changes at other

organizational levels and with other historical backgrounds; and it is generally difficult to set the temporal boundaries of the studied processes. A has descriptions of a line of events within three separate processes, but the general theoretical perspective is not elaborate enough to structure the narratives, giving a structure to the whole and the parts, i.e. giving a plot to the case.

A number of concerns emerge: What if the three stories in fact are interrelated, i.e. perhaps the dilemma of understanding the marketing change agents' actions and ways of acting in their changing context is connected to the fact that plots intersect? What is the plot, i.e. what is the structure of the story that puts the events in a causal relationship to each other? How does the case narrative handle the fact that different interrelated events in Pharmacia Biotech take place at different organizational levels? And, in addition, is this really the most appropriate way to delimit the case? Both concurrent and historical events not included seem to put their obvious mark on the change actions in the three focal events.

In 1993, A partly withdraws from the organization of Pharmacia Biotech, into the archives. There is a need to understand the background of these processes. There are a lot of tensions remaining in the organization from a merger between Pharmacia and LKB. People interviewed in all three change processes have constantly kept coming back to this merger process, referring to it when giving explanations to some of their behaviour.

Towards a second version; intersecting plots and into the history of the company

In a **second version** of the story, emerge three new periods and events - one concurrent with the three first, and the two other being linked in a consecutive temporal order with the three original marketing change events. It is acknowledged that the relationship between the change agents and their contexts in all three marketing change episodes cannot be separated from other change events in connected organizational context and not directly aimed at the core of the marketing and distribution activities. The so called Biosystems episode needs to be included in the plot; many of the changes of contents and processes in the focal change episodes can be explained by this venture. In addition, the three original events seem to be engaged in a perpetual dialogue with a preceding event, the merger process between Pharmacia BTG and LKB. During the course of the events 1989-92, the task force groups in the marketing change episodes also seem to be uncoupling successively from the past and be moving towards a number of stabilizing events of the next period, 1993-1994. In the second version of the case narrative, history enters and the context is extended with several organizational levels. With A's changed understanding of the task force groups' stability and change in behaviour, the emerging plot seems to be cutting across organizational boundaries.

With the entry of history in the second round of interviews (over the period 1992-94) and in the increased use of secondary sources (corporate records and statements from archives, internal corporate letters, newspaper articles, travel reports from task force groups, other research reports, etc.), enter also new methodological problems. Historical data has to be compared and scrutinized. When comparing various written and oral descriptions of the problematic BTG-LKB merger, partly diverging versions are given e.g. of some of the background and results of the merger. Methods for critical analyses of the sources are adopted.²⁸ Due to the increasing ambition to include e.g. microsociological concepts and ideas as support for describing and explaining the actions of change agents, some of the original interviews are also complemented with further interviews, aiming at mapping details concerning interactions during the change processes. In addition, there is an increased reading of macrosociological and historical texts about change processes and temporality. It is triggered by the fact that much behaviour seems to be dependent e.g. on the timing of various actions and events in relation to each other.

The second version of the story now covers the merger process 1986-89, the three original marketing episodes of 1989-92 plus the concurrent Biosystems episode, and parts of the events following this period. The prior assumptions of beginnings, middles and ends are replaced and the intersection of loosely coupled stories are more openly beginning to become part of the explanatory plot of the case narrative. The original marketing change events are made part of a chronological history of loosely coupled events, put into a transitional period between a merger process and new organizational change events after 1992.

In the early 1994, the aim and point of departure for the second version is a chronological story in three phases (1986-89, 1989-92, 1992-94) with apparent links between the events of the three periods. With the background of the LKB-BTG merger, the four change episodes and the succeeding changes following them, some of the major difficulties of understanding the behaviors of the middle period can be resolved. There is also a growing awareness of the fact that the four events of the middle period needs to be joined in some kind of "plot", which more openly takes into account their internal temporal positions. The total BTG narrative still lacks a clear theory of temporality, which takes into account the links between events of the present and the links between events in

²⁸Important inputs in this process are: Thurén, T., *Orientering i källkritik*, Stockholm: Almqvist & Wiksell, 1986, and Waluszewski, A., *Framväxten av en ny massateknik - En utvecklingshistoria*, Uppsala: Department of Business Studies, Uppsala University, 1989. During this process various cross-comparisons of the various written archival sources were made, as well as comparisons between interviews and between interviews and the written sources.

a chronological order. Empirical data also give new unresolved problems. It proves difficult to explain, historically, the agency-structure interplay of the focal marketing change episodes with only the endeavours of the preceding BTG-LKB merger process. Historical explanations further back in time need to be included. A returns to the dismantled article project with H and the ideas about stable, historical norms in relationships. Concerns about the multidimensional character of temporality also enters the research process. Time seems to be moving differently for the different change agents, during different phases. A does not know how to conceptualize this temporality. What theory, perspective, idea, structure, etc. concerning temporality should guide the story?

The third version; a company history

The **third version** of the story emerges during 1994. A becomes captivated by the history of Pharmacia Biotech and of the Pharmacia Corporation. Without doing anything about the lack of understanding of the temporality of the actions studied, A simply continues on the path chosen in version three, letting chronology guide the structure of the text. The second version of the narrative has imposed a form of closure on the disorder of events in Pharmacia Biotech, but A is not reassured. There are a number of unexplained central actions in the focal marketing change episodes. For example, why is it so difficult to introduce new routines for the service and distribution operations? What are the historical norms that seem to be so stable in the marketing organization? What does this stability originate in? There are new suggestions from interviewees that A should probe deeper into the history of the biotech company. Empirical evidence seems to point to the fact that after 1989, different marketing change agents are breaking with different structures, set during different periods in the history of the company. History matters, but in different ways for different marketing change agents.

In early 1994, Pharmacia Biotech is beginning to leave behind the many endeavours of the 1989-92 period, and A is now confronted with another problem of temporality. New events in 1993-1994 and empirical insights gained shed new light on and give explanations to the events of the preceding period. The "new" paths begun in BTG after 1989 (and thus the agency-structure interactions during the period) are becoming clearer and clearer to A, as new events are added; the former fuzzy paths of development are taking shape. While the emerging events of the present are constantly shedding new light on and contribute to a better understanding of the immediate past, A feels he needs to end the story, but how do you end a story? A research project is not allowed to continue for ever.

The third version of the story, presented in 1994, results in a totally revised structure. Having already expanded the context of BTG in the data collection process and inspired by the theoretical concepts and ideas of e.g. Pettigrew (1985), A adopts concepts, mode of presentation and methodology of a contextualist approach to strategic change.²⁹ Due to the size of the growing case narrative, A decides to present it in a separate case book. Building on a contextualist approach, it starts with a description of Pharmacia Biotech's external context, followed by a chapter describing the inner organizational context of the Pharmacia Corporation. Thereafter follows a chronological story of the emergence and change of Pharmacia Biotech, constructed around seven periods in seven different chapters. Starting with changes in the different "wholes" of the industrial and organizational contexts, the story then links the different "parts" belonging to the story of Pharmacia Biotech.

However, A is not satisfied. There is still a disturbing lack of understanding concerning the temporal dimensions of the change episodes, in comparison to the way they are being presented in the story. In addition, the present structure puts somewhat in the background in a disturbing way the original, focal marketing change episodes. A finds that the story is beginning to turn into an anonymous company history of Pharmacia Biotech. What the story is a case of is beginning to change, but in a counterproductive, unintended, way. A is concerned about the fact that he is perhaps beginning to redefine the original, intended audience and problem area, i.e. researchers interested in matters concerning marketing organization and strategic marketing change. In the internal discussions in the research context, A is given the advice to rethink and integrate - again - the case narrative with a more elaborate theoretical discussion and analysis. There is a need to move towards making the theoretical case. But remaining with this problem is the narrative problem of making visible the findings concerning the relationship between the marketing change agents in the case and their moving contextual structures.

The fourth and a fifth version; breaking free from chronology

Combining the empirical insights with theoretical principles from macro sociology, results in a new emerging, narrative structure. The **fourth version** tears up parts of the earlier chronology. With the help of Sztompka's general theoretical ideas about the "functioning" of social processes, "social change", and "historical processes", A is able to understand some of the remaining ambiguities in the case concerning agency-structure interactions and temporality.³⁰ They are translated into the broad, general concepts "concurrence", "transition" and "evolution", which are able to incorporate many of the

²⁹Inspired by: Pettigrew, A., *The Awakening Giant - Continuity and Change in ICI*, Oxford: Basil Blackwell, 1985. For a methodological introduction, see pp. 35-38.

³⁰Sztompka, P., *The Sociology of Social Change*, Oxford: Basil Blackwell, 1993

remaining difficulties to explain the strategic marketing behavior in Pharmacia Biotech. The apparent agency-structure problems of the interconnected change episodes 1989-92 are collected under the first. The fourth version breaks away from A's earlier preconceptions about "appropriate" structures of single case narratives, heavily indebted to the westernized view of temporal linearity and consecutive chronologies. In the process of matching ideas and evidence, of finding a story and plot, of presenting a convincing imagery and plausible narrative, and of finding theoretical concepts and ideas that are both dynamic and general, the case is delimited (in time and place) and an idea of what it is a case of has emerged.

A's understanding of what the case is a case of is now changing; while it is still a matter of understanding and generating knowledge about strategic marketing change processes from an interactional, network oriented, but actor based, perspective, theoretical aspects concerning moving contexts at varying organizational levels, history and various aspects of time and temporality are coming into the forefront of the agency-structure interaction problem. The early acknowledged methodological problems with single case narratives - intersecting plots, periodization and events at different contextual levels - have been integrated and made central parts of the story and theoretical reasoning. In the search for a story that attempts to describe what strategic marketing organizations can be about, A decides to settle with the fourth version despite the fact that lack of understanding remains concerning, for example, the interplay and shifts between different temporal contexts. When, where and why do marketing change agents shift between adaptations to processes of the present and actions concerned with the history of the context? In the fourth version, it is decided to integrate the story with the theoretical and analytical discussions, keeping it together in one single book.

Due to the size of the emerging story and complementary discussions, and in discussions in the research context, it is decided to rethink again. In the fall of 1995, it is decided that A should separate the case study from the theoretical, analytical and methodological discussions. It is mainly done on account of size, and the fifth version results in only minor revisions of the case narrative structure.

Epilogue

Despite the decision to finally choose a narrative structure, a number of ambiguities and uncertainties remain unchanged. Based on the firm belief that both the narrative contents and style, and the structure of single case narratives are central parts of their rhetorics, there remain concerns. The theoretical pluralism - moving sometimes far from the start in marketing and distribution theories and models (however within the realms of an interactional, network view) - and the empirical diversity leave A with a number of

unanswered questions: Is this only a study of strategic, industrial marketing change or can it be defined and classified in other ways? Does the story only open up for more ambiguities concerning what can be defined as "marketing"? Will different readers - irrespective of science area - regard the writer as "intruder", "defector" and "dilettante"? The problem of what the case can be perceived to be a case of partly remains, for good and for bad:³¹

Strong preconceptions (of what the case is a case of) are likely to hamper conceptual development. Researchers probably will not know what their cases are until the research, including the task of writing up the results, is virtually completed. What *it is a case of* will coalesce gradually, sometimes catalytically, and the final realization of the case's nature may be the most important part of the interaction between ideas and evidence...The less sure that researchers are of their answers, the better their research may be. From this perspective, no definitive answer to the question 'What is a case?' can or should be given, especially not at the outset, because *it depends*. The question should be asked again and again, and researchers should treat any answer to the question as tentative and specific to the evidence and issues at hand.

There is the uncertainty of the size and complexity of the case and also of the future reception.³²

There is also the question how the constructed story will be perceived by people in Pharmacia Biotech. Contacts are resumed in 1995 with F and versions of the change episodes are sent out to those concerned (thus receiving only a part of the story) for comments on interpretations and descriptions. F receives a version of the whole story. Remaining uncertainties concerning confidential information have to be checked and sorted out. Some detailed information on the company's customers are taken out of one of the change episodes (the regionalization process).

And there remain also other uncertainties. A has tried to handle the problem of creating a coherent text in the ongoing process of matching theory and empirical evidence, relying on pluralism (concerning theory, method as well as data generation).³³ But there remain

³¹Ragin (1992) arguing that too strong preconceptions may be counterproductive. (In: Ragin, C., 'Introduction: Cases of "What is a case"', in: Ragin and Becker(eds.), *What is a Case - Exploring the Foundations of Social Enquiry*, Cambridge: Cambridge University Press, 1992, p.6)

³²Ragin (1992) states: "...cases may be multiple in a given piece of research: What the case is may change both in the hands of the researcher (during the course of the research and when the results are presented) and in the hands of the researcher's audience."(ibid, p.8)

³³Lundgren (1991) describes this necessary pluralism: "The process of theorizing around dynamic processes, characterized as they are by multiple change and multiple causation, calls for pluralism. In the successive abstraction of unique observation, in the pursuit of insight through analysis and genesis, anything goes. In the sequential reiteration of analysis, genesis and insight, pluralism is essential: poems, prayers or promises, theoretical reasoning, anecdotal evidence or quantitative methods of analysis anything goes in the pursuit of insight. The only action that would be totally wrong would be to refrain from trying additional methods or alternative modes of reasoning, that is, to refrain from pluralism. Note here that what I am advocating is not an extreme form of pluralism, but a pluralism within the realms of existing observations and within the actual line of reasoning. The basic scientific criterion employed is that of internal consistency: the consistency of the theoretical reasoning and the consistency between the empirical findings and the theoretical reasoning.", (In: Lundgren, A., *Technological Innovation and Industrial Evolution - The Emergence of Industrial Networks*, Stockholm: EFI, 1991, p.76)

concerns about the external validity, here related to a unique, single case narrative, and the connections between external validity and unique observations.³⁴

The language and construct generating single case narrative - formed within the realms of a "language building ideal"³⁵ - will partly leave the question of applicability of the theoretical findings unanswered. For A, the learning process has generated a better understanding of e.g. the many ambiguities surrounding marketing change actions in moving industrial contexts. An important step in transferring this learning to the text, making it persuasive, trying create universal knowledge from the specific, has been the ambition to provide rich and plausible, "thick descriptions" of the marketing change processes.³⁶ Detailed knowledge about the very specific should make it possible to appreciate similarities when transferred to new and unknown contexts.

There remain concerns also regarding the language, i.e regarding the narrative style of the story and of the complete text. Late in the process, A becomes concerned with the narrative style, complementing the concerns about the emerging mode of employment, the case structure, the case contents and the case boundaries. Also the narrative style becomes wrapped in arguments, being part of the internal consistency and, thus, of the "results" of the study. There is a growing notion that the narrative style will be intimately connected to the rhetorics (e.g as the classical rhetorics encompassing invention, arrangement and style). The emerging research text is a conversation encompassing meaning.³⁷ What *type of historical plot* does the narrative style now reveal?³⁸ Is the style in accordance with the rest of the arguments? If not, is there anything that can be done about it? There remain concerns about whether the style of the narrative text in the story cohere with or contradict

³⁴Merriam (1994) gives examples of several ways to approach this connection: the knowledge gained can be treated as "working hypotheses", serving to provide perspectives and theories for actions rather than generate universal theories; the aim is not to generate abstract but concrete universal knowledge and the general is there to be found, in the detailed descriptions of the very special; tacit knowledge, intuition and personal experiences are used by people in "naturalistic generalization", and people look for evidence everywhere, i.e outside and inside different contexts, which can explain their reality and experiences; lastly, reader and user generalization as a way to get around the problem, and the question whether the results are possible to generalize is left to the reader/user to decide, i.e to people who can be expected to be in other, but perhaps similar, situations. Researchers then do not have to worry about generalizations - it should be left to those who wish to apply the results in their own contexts and situations. (In: Merriam, S.B., *Fallstudien som forskningsmetod*, (translation of *Case Study Research in Education*, San Francisco: Jossey-Bass Inc., 1988), Lund: Studentlitteratur, 1994, pp. 183-188)

³⁵Term used by Brunsson, N. in "Företagsekonomi - avbildning eller språkbildning", in Brunsson, N.(ed.), *Företagsekonomi - sanning eller moral? Om det normativa i företagsekonomisk idéutveckling*, Studentlitteratur, Lund, 1982. Brunsson emphasizes (in accordance with Glaser and Strauss, 1968) the importance of theory and language generation rather than concentration on theory verification. Case studies and thick descriptions are a natural choice in this process of generating useful language.

³⁶Geertz, C., *The Interpretation of Cultures*, New York: Basic Books, 1973

³⁷Czarniawska-Joerges, B., "Realism Revisited: "Historical and Contemporary Connections between the Novel, Social Sciences and Organization Theory", Lund University, 15, 1992

³⁸White (1973) simplifies the discussion by arguing that there are only four kinds of historical plots in social research: tragedy, comedy, romance and irony. (In: White, H., *Metahistory*, Baltimore: Johns Hopkins University Press, 1973)

the rest of the reasoning. Research is writing and there is a need for the writing to cohere. Very late in the process, critical reviews of the narrative style are started. In this process, ideas about using different types of narratives as a method for future research are born. (Described in the reflections on future research preceding these notes on method.)

COMMENTS

The transformation process continues:³⁹

Human beings transform nature socially, and by 'humanizing' it they transform themselves; but they do not, of course, produce the natural world, which is constituted as an object-world independently of their existence. If in transforming that world they create history, and hence live *in* history, they do so because the production and reproduction of society is not 'biologically programmed'.

The case emerges as a multiple way station, i.e. an intermediate product where an important part of the continuing process remains with the readers, while for A the question what the case is a case of keeps coming back.⁴⁰ As stated by Walton:⁴¹

If the analysis accomplishes anything, it does so by pursuing the deceptively simple question "A case of what"? Any case, of course, may offer a variety of answers to the question "A case of what?" Rather than arguing that there is a single or ideal answer, I am saying that any answer presumes a theory based on causal analogies. What constitutes the best answer at a given time will be decided by those communities of social scientists who confirm today's theoretical fashion and will surely change as new questions are put to old cases.

Despite the emerging closure on the disorder of events in the story, there remains uncertainty about remaining ambitions and intentions. Some of these are coupled to difficult, but necessary choices and reductions made early in the research process. For example, among the initial intentions and ambitions, there were plans to follow closely the strategic change events in Pharmacia Biotech also from the point of view of other actors in the marketing system (customers, market subsidiaries, other Pharmacia companies), resulting in a number of interviews which to some extent remained unused. The actor focus chosen (i.e. a central management group perspective) leaves open questions concerning how these processes were experienced by the other important actors in the story. The fact that the intentions and ambitions to include also these versions were

³⁹Giddens, A., *New Rules of Sociological Method* (2nd ed.), Stanford: Stanford University Press, 1993, p.168

⁴⁰"They say I am young, but that's not true. There is no youth, childhood or old age. There are only those years when we believe in and fight for the ultimate answers, and those years when we try to realize that we always have to live with the questions. A long time ago I passed the border line, a long time ago I realized that all I can do is to try to ask the same few questions without answers in constantly new ways." (In: Hoeg, P., *Berättelser om natten*, Stockholm: Norstedts Förlag, 1994, p.111, transl.)

⁴¹Walton, J., "Making the theoretical case", in: Ragin and Becker(eds.), *What is a Case - Exploring the Foundations of Social Enquiry*, Cambridge: Cambridge University Press, 1992, p.135

there from the beginning does not help much; the curiosity remains with the feeling that a much more interesting story might be there, waiting to be told.

One of the main conclusions from the study of marketing change in Pharmacia Biotech is that cases - here, a single case narrative - are fundamentally dynamic. The methodological problems and issues in the process of linking the theoretical with the empirical are determined by the unequivocal fact that the single case narrative is inseparably linked with process and successive transformation:⁴²

...within the case/narrative approach transformation in attributes can be so extreme that a case which began as an instance of one category may complete a study as an instance of another...

What the study, the case, is a "case of" will shift during the process.⁴³

My argument is that cases are 'made' by invoking theories, whether implicitly or explicitly, for justification or illumination, in advance of the research process or as its result. This interpretation supports a renewed appreciation for the role of case studies in social research and offers a fruitful strategy for developing theory. The argument derives from a research project in which my own understanding of what the case study was a 'case of' shifted dramatically in the process of pursuing the study and explaining its results. The research, begun as a study of one thing, later proved to be a study of something quite different. I believe that there is a general lesson here...

And the delimitation of the subject of the case will also change:⁴⁴

The first step of the single-case narrative is delimiting the case itself, what historiographers have called "the central subject problem" (Hull 1975). There are many varieties of central subjects in historical case studies, for subjects need not be social actors or groups. They can be events, social groups, or even states of affairs. The crucial difficulty (a subject of much historiographical conflict) lies in drawing boundaries around the central subject given the continuous character of the social manifold. Note how this difficulty is avoided by the population/analytic approach, which tends to work with populations where cases are unambiguously distinct...

Identifying the events is only one step in creating a single case narrative, the very first step as described by Abbott:⁴⁵

Describing what the case does or endures is what philosophers of history call the colligation problem. It has several subparts. The first is identifying the events involved. Events, like concepts in more familiar methods are hypotheticals. Every historian considers dozens of indicating occurrences when deciding whether a given event has taken place...Moreover, these hypothetical events have varying duration and visibility.

⁴²Abbott, A., "What do cases do? Some notes on activity in sociological analysis" (Chapter 2), in: Ragin, C.C. and Becker, H.S.(eds.), *What Is a Case? Exploring the foundations of social enquiry*, Cambridge: Cambridge University Press, 1992, (pp. 63-64)

⁴³Walton, J., "Making the theoretical case", in: Ragin and Becker(eds.), *What is a Case - Exploring the Foundations of Social Enquiry*, Cambridge: Cambridge University Press, 1992, p.121

⁴⁴Abbott, A., "What do cases do? Some notes on activity in sociological analysis" (Chapter 2), in: Ragin, C.C. and Becker, H.S.(eds.), *What Is a Case? Exploring the foundations of social enquiry*, Cambridge: Cambridge Press, 1992, pp.62-63

⁴⁵Abbott (1992), *ibid*, pp.64

Finding ways to deal with problems of handling the concurrent participant observation and "immersion" into the organizational context becomes part of the process:⁴⁶

Immersion in a form of life is the necessary and only means whereby an observer is able to generate such characterizations. 'Immersion' here - say, in relation to an alien culture - does not, however, mean 'becoming a full member' of the community, and cannot mean this. To 'get to know' an alien form of life is to know how to find one's way about in it, to *be able* to participate in it as an ensemble of practices. But for the sociological observer this is a mode of generating descriptions which have to be mediated, that is, transformed into categories of social-scientific discourse.

The methodological lessons to be learned will be inseparably connected to the fact that the contents, the processes and the context of the single, longitudinal case study will be both stable and changing. When stable contacts have been established, the immersion into the micro dynamics of objects of study, organizational change processes can cause opposite problems; the involvement reduces the understanding of the moving macro context:⁴⁷

We develop very personal research styles that become comfortable, and while we may get better at finding the information we seek and interpreting what we find, we may be blind to other sorts of information because our ability to see it is undeveloped. We readily "see" either micro or macro, but not both.

In a dynamic, moving context, with sometimes blurred boundaries between the object and the subject of research, a structured case study text successively emerges:⁴⁸

To begin with, there are many constructions of reality (thus many realities) which will always lead to divergent inquiry results. Therefore, the outcomes of a scientific inquiry can contribute to an increased understanding, not to prediction and control - just like *belles lettres*. Also, there is no obvious border between a "subject" and an "object" of research, the "objects" being human and therefore subjects themselves. Inquiry is an interaction - just as a text is, between the author and the reader. Knowledge is idiographic in character - attempts at nomothetic descriptions of the human world are in vain. Social phenomena are overdetermined (a statement by Freud, applied to organization theory by Weick, 1979) and fruitless efforts at establishing simple causation should be abandoned in favor of detecting patterns of actions, events, processes... Lincoln... points out that the "case study reporting mode", that is, the one closest to a traditional novelistic narrative, renders itself best to the service of the emergent paradigm (Lincoln 1985).

Like the history of Pharmacia Biotech is an indivisible, continuous process whose story and plot has to be found successively when linking theory with empirical insights, the case writing process is also one with basically arbitrary boundaries:⁴⁹

⁴⁶Giddens, A., *New Rules of Sociological Method*, (second ed.), Stanford, CA.: Stanford University Press, 1993, pp. 169-170

⁴⁷Vaughan (1992) about the problematic tension between micro and macro understanding. (Vaughan, D., "Theory elaboration: the heuristics of case analysis", in: Ragin, C.C. and Becker, H.S.(eds.), *What Is a Case? Exploring the foundations of social enquiry*, Cambridge: Cambridge Press, 1992, p.183).

⁴⁸Czarniawska-Joerges, B., ("Realism Revisited: Historical and Contemporary Connections between the Novel, Social Sciences and Organization Theory", Lund University, 1992/15, pp. 10-11) describes the emergence of naturalism and critical realism in the social sciences, sampling descriptions by Guba, E.G., ("The context of emergent paradigm research". In: Lincoln, Y.S.(ed.), *Organizational theory and inquiry: The paradigm revolution.*, Beverly Hills, CA: Sage, 1985).

⁴⁹Lundgren, A., *Technological Innovation and Industrial Evolution - The Emergence of Industrial Networks*, The Economic Research Institute, Stockholm School of Economics, Stockholm, 1991, p. 75

The scheme through which we generate knowledge from historical processes is a complex activity of analysis, genesis and insight, actively constructed by the mind of the investigator in order to understand, predict or control the complex social processes of reality. The process is never finished. New insights set the scene for reclassification of observations: calling for re-analysis of the changing parts: producing opportunities for more insight. And there is always plenty of room for new insight.

This way a case story will always be an intermediate product:⁵⁰

Casing is an essential part of the process of producing theoretically structured descriptions of social life and of using empirical evidence to articulate theories. By limiting the empirical world in different ways, it is possible to connect it to theoretical ideas that are general, imprecise, by dynamic verbal statements. In this perspective a case is most often an intermediate product in the effort to link ideas and evidence. A case is not inherently one thing or another, but a way station in the process of producing empirical social science. Cases are multiple in most research efforts because ideas and evidence may be linked in many different ways.

The "process of casing"⁵¹ in a single case narrative does not involve a search for causes but a search for a story; a story which comes wrapped in arguments, claims, regularities and theories. The embedded rhetorics can also emerge from the intended audience:⁵²

The ways cases are chosen, analyzed, amalgamated, generalized, and presented are all part of their use in argument. It is assumed that an argument is designed to reach a conclusion which the reader (and the writer) will find convincing. It is thus always relevant to consider the intended audience, and the use of cases may be treated as part of a work's rhetoric.

The process of producing a plausible story from social processes in terms of a complex case with its own plot(s) draws attention to the methodology of successive case transformation. Like in this case, three general problems will recur, over and over again: the intersection of plots, periodization, and the fact that events take place at different contextual "levels":⁵³

The idea that we ought to think about social processes in terms of complex cases going through plots has its own problems, however. There are three principle ones. The first is that plots intersect. A given event has many immediate antecedents, each of which has many immediate antecedents, and conversely a given event has many consequents, each of which has many consequents...A related problem is the implicit assumption that subsections of the social process have beginnings, middles, and ends, rather than simple endless middles....the issue of plot as having beginning, middle, and end - the issue of periodization - is a major problem....How in fact do narratives explain? In a curious way the answer to this question doesn't much matter, for narrative is where positivists turn when reasoning in variables fails, and of course a particular narrative is what is rejected if an entailed set of variable relationships is implausible or incorrect...And the roving focus of the case/narrative approach has another distinct advantage over the population/analytic approach. It need make no assumption that all causes lie on the same analytical level...

⁵⁰Ragin, C.C., ' "Casing" and the process of social inquiry' (chapter 10), in: Ragin, C.C. and Becker, H.S.(eds.), *What Is a Case? Exploring the foundations of social enquiry*, Cambridge: Cambridge Press, 1992, p.225

⁵¹Ragin (1992), *ibid*

⁵²Platt, J., "Cases of cases...of cases" in: Ragin, C.C. and Becker, H.S.(eds.), *What Is a Case? Exploring the foundations of social enquiry*, Cambridge: Cambridge Press, 1992, p. 21

⁵³Abbott, A., "What do cases do? Some notes on activity in sociological analysis" (Chapter 2), in: Ragin, C.C. and Becker, H.S.(eds.), *What Is a Case? Exploring the foundations of social enquiry*, Cambridge: Cambridge Press, 1992, pp.65-68

A plot can emerge:⁵⁴

...events must then be arranged in a plot that sets them in the loose causal order that we generally regard as explanatory.

There emerges a story based on historical understanding, successively fusing different time horizons of the immediate past, the present and the immediate future:⁵⁵

The horizon of the present is continually formed, in that we have continually to test all our prejudices. An important part of this testing is the encounter with the past and the understanding of the tradition from which we come. The horizon of the present cannot be formed without the past. There is no more an isolated horizon of the present than there are historical horizons. Understanding, rather, is always the fusion of those horizons we imagine to exist themselves.

The events are put in a temporal sequence, a chronicle, a "prenarrative discourse" with a number of events as the "raw material" of history.⁵⁶ There is a need for a perspective on temporality, a theory, to guide the narrative:⁵⁷

As we have seen, modern historical discourse depends on an awareness of temporality, and of the radical differences it introduces between societies and epochs. Marc Bloch calls history ' "the science...of men in time". The historian does not think of the human in the abstract. His thoughts breathe freely the air of the climate of time'. But if this is right, then historical enquiry requires some conception of how human beings relate to their variable social contexts, and of the nature of and the differences between these contexts. In other words, it requires a social theory.

Using the words of Ricoeur, the process of constructing the final story, the operation of emplotment, will be "a synthesis of heterogeneous elements".⁵⁸ It will be a synthesis between the multiple events and incidents and the unified and complete story. The plot that has emerged serves to transform the many events into one story:

In this respect, an event is more than something that just happens; it is what contributes to the progress of the narrative as well as to its beginning and to its end.

And with Ricoeur's view, the emplotment is a synthesis in a more profound sense, because the final narrative composition will entail a *temporal* totality, synthesising two types of time:⁵⁹

We could say that there are two sorts of time in every story told: on the one hand, a discrete succession that is open and theoretically indefinite, a series of incidents (for we can always pose the question: and then? and then?); on the other hand, the story told presents another temporal aspect

⁵⁴Abbott (1992), *ibid.*, p.64

⁵⁵Gadamer, H-G., *Truth and Method* (Wahrheit und Methode), Tübingen, 1960, pp. 258-273

⁵⁶Callinicos (1995) comments on White, H. (*The Content of The Form*, Baltimore, 1987): "White thus oscillates between treating events as the chaotic raw material of history, nothing without the form-giving intervention of narrative, and positing a prenarrative discourse, chronicle, which offers unmediated access to these events".(Callinicos, A.,*Theories and Narratives*, Cambridge: Polity Press, 1995, pp.74-75)

⁵⁷Callinicos (1995) building on Bloch, M. (*A Historian's Craft*, transl. of *Apologie pour l'histoire*, Manchester 1954), (*ibid.*, p.91)

⁵⁸Ricoeur, P., "Life in Quest of Narrative" (chapter 2), In: Wood, D. (ed.), *On Paul Ricoeur - Narrative and Interpretation*, London: Routledge, 1991, p.21

⁵⁹*Ibid.*, p.22

characterized by integration, culmination and closure owing to which the story receives a particular configuration. In this sense, composing a story is, from the temporal point of view, drawing a configuration out of a succession. We can already guess the importance of this manner of characterizing the story from the temporal point of view inasmuch as, for us, time is both what passes and flows away and, on the other hand, what endures and remains.

In the final narrative can be collected the various complexities and the multiplicity of social times:⁶⁰

Emphasis on the complexity of social times brings together the personal and the global, the technological and the literary, the bodily and the scientific, totalizing tendencies and local particularities, coevalness and difference. It binds into a unified but conceptually unconventional whole what constitute antinomies, contradictions and incompatible categories in the traditions of Enlightenment thought.

However, having stated this, there remains the question whether the complexity and problematic elements of time can ever be resolved by narratives. Having examined the relations between time and narrative, Ricoeur finally reflects upon the inscrutability of time itself.⁶¹ It is commented on by Wood:⁶²

What perhaps we should remember here is that time is not just an enveloping beyond to all our little bubbles of narrative order, it is more like the weather, capable of gentle breezes and violent storms. For all our ability to breed domestic forms of time, it also holds in reverse the apocalyptic possibility of dissolving any and all of the horizons of significance we have created for ourselves.

Nevertheless, we can assume that in practice it should be possible to grasp the properties of e.g social time in organizations that are most relevant to the actors constructing them, constructing concepts and narratives in the interaction between the actors and the researcher.⁶³ And being aware of the fragile character of concepts and narratives, and "that they are temporary and contingent on place and circumstance."⁶⁴

Suffice to say, and following the reasoning of Ricoeur, in the hands of the reader the final narrative can be a path to increase our self-knowledge and our understanding of humans and their experiences of time:

Do not human lives become more readily intelligible when they are interpreted in the light of the stories that people tell about them? And do not these "life stories" themselves become more intelligible when what one applies to them are the narrative models - plots - borrowed from history or fiction?...It is thus plausible to endorse the following chain of assertions: self-knowledge is an interpretation; self interpretation, in its turn, finds in narrative, among other signs and symbols, a

⁶⁰Adam, B., *Time Watch - The Social Analysis of Time*, Cambridge: Polity Press, 1995, p. 150

⁶¹Ricoeur, P., *Time and Narrative* (Vol.3, transl.), Chicago: The University of Chicago Press, 1988, pp.241-274

⁶²Wood, D., "Introduction: Interpreting Narrative", In: Wood, D. (ed.), *On Paul Ricoeur - Narrative and Interpretation*, London: Routledge, 1991, p.10

⁶³Czarniawska-Joerges, B., *The Three-Dimensional Organization - A Constructionist View*, Lund: Studentlitteratur, 1993, pp.8-11. (Building on Latour (1986), Czarniawska-Joerges describes in this way a performative definition of organization.)

⁶⁴Ibid, p.10

privileged mediation; this mediation draws on history as much as it does on fiction, turning the story of a life into a fictional story or a historical fiction...

The plot is there to be discovered and invented in the perpetual dialogue between evidence and theory.⁶⁵ Herein lies some of the methodological and explanatory powers and problems of the single case narrative. It is a matter of entering a process of incalculable transformation.⁶⁶ There is a "transformative power" of the single case narrative:⁶⁷

The transformative powers of this approach lie not only in having lots of facts, but in the radically different kinds of facts that varying cases can produce, which result in three major benefits for theory. First, because shifting units of analysis can produce qualitatively different information, case comparison can generate startling contrasts that allow and, in fact, demand us to discover, to reinterpret, and ultimately to transform our theoretical constructs. Secondly, selecting cases to vary the organizational form sometimes permits varying the level of analysis. Because of the different sorts of data available from microlevel and macrolevel analysis, choosing cases that vary both the unit of analysis and the level of analysis, when possible, can lead to the elaboration of theory that more fully merges microunderstanding and macrounderstanding. Third, this method can be particularly advantageous for elaborating theories, models, and concepts focusing on large, complex systems that are difficult to study."

It is also a matter of accepting the fact that no matter how many versions, it will only be an intermediate "way station" in the process of creating knowledge, as here on industrial marketing change processes. In this process of transformation there is a need for both stability and change. The methodology of the single case narrative - the methodological problems and dilemmas, strengths and weaknesses, opportunities and constraints, etc. - cannot be separated from the dynamics inherent in the move to a way of seeing realities as fuzzy, and with autonomously defined complex properties.⁶⁸ The single case narrative can leave the researcher in unknown terrains, in which the uncertainty only successively is replaced by more stable facets, structures and ideas:⁶⁹

There are no predetermined rules or procedures that can be followed during the course of the study, neither concerning planning nor data collection and analysis. ..You have to realize that "the right

⁶⁵Jason had discovered that in reality there was no story/plot. Reality consisted of those endless circles which he was now on his way to begin; life emerged from an unclear beginning, into infinity. Endings, which are necessary for all stories, are inventions.....-The major part of the literature, he said, has a limited number of different beginnings, a predictable ending, and inbetween a story. Reality has non of this." (In: Hoeg, P., *Berättelser om natten*, Stockholm: Norstedts Förlag, 1994, pp.235 and 238, transl.)

⁶⁶"The history of science in Europe has not been able to settle the discussion between the followers of Aristotle and Galenos. The question whether he who sees passively receives an optical impression of reality or is himself shaping what he sees. In front of the woman on the floor I realized that this dialogue had always been meaningless, because the question was wrongly posed. It assumes that there is a stable reality to observe. There is not. In the moment that we start observing the world, it starts to change. And so do we. To observe reality is not a matter of understanding a static structure. It is a matter of undergoing and beginning an incalculable transformation." (Hoeg (1994), *ibid*, p.267, transl.)

⁶⁷Vaughan, D., "Theory elaboration: the heuristics of case analysis", in: Ragin, C.C. and Becker, H.S.(eds.), *What Is a Case? Exploring the foundations of social enquiry*, Cambridge: Cambridge Press, 1992, pp. 176-177

⁶⁸Abbott, A., "What do cases do? Some notes on activity in sociological analysis" (Chapter 2), in: Ragin, C.C. and Becker, H.S.(eds.), *What Is a Case? Exploring the foundations of social enquiry*, Cambridge: Cambridge Press, 1992, p.65

⁶⁹Merriam, S.B., *Fallstudien som forskningsmetod*, Lund: Studentlitteratur, 1994, p.51, translation of: *Case Study Research in Education*, Jossey-Bass Inc., San Francisco, 1988

way" is not always that obvious. It is precisely this lack of structure which is so attractive for some researchers, as it makes it possible for the researcher to adapt to unpredictable events, and thereby change path in the search for meaning...To be confident beforehand that the method of analysis chosen shall prove to be acceptable is impossible in this kind of research. The case study thus leaves the researcher in practically unknown terrains.

Some of the initial, necessary stability can be provided by the researcher's ontology, philosophical standpoints, history, and social network context in the research community and elsewhere, but the overarching focus on process and transformation in longitudinal case narratives can leave also these factors open for change.

In the process of writing this single case narrative, one of the methodological lessons learned concerns the process of finding a form of narrative structure which is appropriate for the need to move between the details of cross cutting actions of the parts and the movements of the larger whole, between different actor perspectives, and also between different time perspectives. Finding a model for the narrative which in thick descriptions of micro narratives can illuminate the movements of the macro structures is one of the major challenges faced in a study of this kind. It is believed that one of the ways for enriching theory generation in industrial marketing concerns the search for models for case study narratives. Experimenting with form for the purpose of synthesising events and structure, narratives and theory, may be one of the challenges facing marketing research.

References

- Abbott, A., "What do cases do? Some notes on activity in sociological analysis" In: Ragin and Becker(eds.), *What is a Case - Exploring the Foundations of Social Enquiry*, Cambridge: Cambridge University Press, pp. 53-82, 1992
- Abell, D.F. and Hammond, J.S., *Strategic Market Planning. Problems and analytical approaches*, Englewood Cliffs, N.J.: Prentice-Hall, 1979
- Achrol, R.S., Reve, T. and Stern, L.W., "The Environment of Marketing Channel Dyads: A Framework for Comparative Analysis", *Journal of Marketing*, Vol. 47, pp. 55-67, 1983
- Adam, B., *Time Watch - The Social Analysis of Time*, Cambridge: Polity Press, 1995
- Alderson, W., "Factors Governing the Development of Marketing Channels", In: Richard M. Clewett (ed.), *Marketing Channels for Manufactured Products*, Homewood, Ill.: Irwin, pp. 5-22, 1954
- Alderson, W., *Marketing Behaviour and Executive Action*, Homewood, Ill.:Richard D. Irwin, 1957
- Alderson, W., "A Normative Theory of Marketing Systems", In: Sheth and Garrett(eds.), pp. 724-740, 1986, reprinted from: Cox, R., Alderson, W. and Shapiro, S.,*Theory in Marketing*, Homewood Ill.: Irwin, pp. 92-108, 1964
- Alderson, W., *Dynamic Marketing Behavior*, Homewood, Ill.:Richard D. Irwin, 1965
- Alderson, W. and Martin, M. W., "Toward a Formal Theory of Transactions and Transvections", In: Mallen, Bruce E. (ed.), *The Marketing Channel: A Conceptual Viewpoint*, New York: Wiley, 1967
- Alderson, W. and Cox, R., "Towards a Theory of Marketing", In: Sheth and Garrett(eds.), pp. 817-836, 1986, (reprinted)
- Aldrich, H. E., *Organizations and Environments*, Englewood Cliffs: Prentice-Hall, 1979
- Alexander, L.D., "Successfully Implementing Strategic Decisions", *Long Range Planning*, Vol. 18, No 3, pp. 91-97, 1985
- Anderson, E. and Coughlan, A.T., "International Market Entry and Expansion via Independent or Integrated Channels of Distribution", *Journal of Marketing*, 51 (1), pp. 71-82, January 1987
- Anderson, J.C., Håkansson, H. and Johanson, J., "Dyadic Business Relationships and Business Networks: An Integrative Essay", Working paper, Department of Business Studies, Uppsala University and Department of Marketing, J. L. Kellogg Graduate School of Management, Northwestern University, 1991. Reprinted in: *Journal of Marketing*, 58, October, 1994
- Andersson, P., *Eftermarknad* ("Aftermarket"), Uppsala: Mekanförbundets Förlag, 1988
- Andersson, P., "Analysing distribution channel dynamics: Loose and tight couplings in distribution networks", *European Journal of Marketing*, Vol. 26. No. 2, pp. 47-68, 1992

- Ansoff, H.I., *Corporate Strategy*, New York: McGraw-Hill, 1965
- Antonides, G., Arts, W. and van Raaij, W.F.(eds.), *The Consumption of Time and the Timing of Consumption - Toward a New Behavioral and Socio-Economics*, Amsterdam: North-Holland, 1991
- Archer, M., *Culture and Agency*, Cambridge: Cambridge University Press, 1988
- Archer, M., *The morphogenesis of social agency*, SCASSS, Uppsala, p.33, 1989
- Arndt, J., "The Political Economy of Marketing Systems: Reviving the Institutional Approach", *Journal of Macromarketing*, Fall, 1981
- Astley, W.G. and Van de Ven, A.H., "Mapping the Field to Create a Dynamic Perspective on Organization Design and Behavior", In: Joyce, W.F. and Van de Ven, A.H.(eds.), *Perspectives on Organization Design and Behavior*, New York:Wiley, pp.427-468, 1981
- Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, 1992
- Bagozzi, R.P., "Marketing as exchange", *Journal of Marketing*, No. 39, pp. 32-39, (October) 1975
- Bagozzi, R.P., *Principles of Marketing Management*, New York: Macmillan Publishing Company, 1991
- Benson, K.J., "Organizations: A Dialectical View", *Administrative Science Quarterly*, Vol. 22, pp. 1-21, March 1977
- Blair, E. and Uhl, K., "Wroe Alderson and Modern Marketing Theory", College of Commerce and Business Administration, University of Illinois, AMA Proceedings, pp. 66-84, 1976
- Blau, *Exchange and Power in Social Life*, New York: Wiley, 1964
- Boulding, K.E., "The place of the image in the dynamics of society", In: Zollschan, G.K. and Hirsch, W. (eds.), *Explorations in Social Change*, Boston: Houghton Mifflin, 1964
- Braudel, "History and the Social Sciences. The Longue Durée.", *Annales E.S.C.*, No. 4 (October-December), pp. 725-753, 1958
- Breyer, R., "Some Observations on Structural Formation and the Growth of Marketing Channels", in *Theory in Marketing* (2nd series), Alderson, W. and Shapiro, S. (eds.), Homewood, Ill.: Richard D. Irwin, 1964
- Brownlie, D.T., *Putting the Management into Marketing Management* (chapter 2), in: Baker, M.(ed.), *Perspectives on Marketing Management*, Chichester: John Wiley, 1991
- Brunsson, N., "The Irrationality of Action and Action Rationality: Decisions, Ideologies and Organizational Action", *Journal of Management Studies*, 19(1), pp.29-44, 1982
- Brunsson, N. in "Företagsekonomi - avbildning eller språkbildning", In: Brunsson, N.(ed.), *Företagsekonomi - sanning eller moral? Om det normativa i företagsekonomisk idéutveckling*, Studentlitteratur, Lund, 1982
- Buckley, W., *Sociology and Modern Systems Theory*, Englewood Cliffs: Prentice Hall, 1967
- Bucklin, P., "The Economic Structure of Channels of Distribution", In: Bell, M. T. (ed.), *Marketing: A maturing Discipline*, Chicago: AMA, 1960
- Bucklin, Louis P., *Competition and Evolution in the Distributive Trades*, Englewood Cliffs: Prentice Hall, pp. 18-31, 1972
- Burke, P.(ed.), *New Perspectives on Historical Writing*, Cambridge: Polity Press, 1991
- Burke, P., *History and Social Theory*, Cambridge: Polity Press, 1992

- Callinicos, A., *Theories and Narratives*, Cambridge: Polity Press, 1995
- Cespedes, F., "Channel Management is General Management", *California Management Review*, pp. 98-120, Fall 1988
- Chaffee, E.E., "Three Modes of Strategy", *The Academy of Management Review*, Vol.10, pp. 89-98, 1985
- Chandler, A., *Strategy and Structure*, The M.I.T. Press, Cambridge, Mass., 1962
- Clewett, R., "The Clustering of Firms in a Wholesale Vegetable Market", in *Theory in Marketing*, Alderson, W. and Cox, R. (eds.), Chicago, Ill.:Richard D. Irwin, 1950
- Commons, J.R., *The Economics of Collective Action*, Madison: University of Wisconsin Press, 1950
- Cook, K. S., "Exchange and Power in Networks of Interorganizational Relations", *The Sociological Quarterly*, 18, pp. 62-82, Winter 1977
- Cook, K. and Emerson, R., "Power, equity and commitment in exchange networks", *American Sociological Review*, 48 (1), pp. 217-241, 1978
- Cox, R. and Goodman, C., "Marketing of Housebuilding Materials", *Journal of Marketing*, Vol. 21, pp. 36-61, July 1956
- Cox, R. and Schutte, T.F., "A Look at Channel Management", in McDonald, P.R.(ed.), *Marketing Involvement in Society and the Economy*, Chicago: American Marketing Association, 1970
- Cyert, R.L. and March, J.G., *A Behavioral Theory of the Firm*, Englewood Cliffs, N J: Prentice Hall, 1963
- Czarniawska-Joerges, B., "Realism Revisited: Historical and Contemporary Connections between the Novel, Social Sciences and Organization Theory", Lund University, 15, 1992
- Czarniawska-Joerges, B., *The Three-Dimensional Organization - A Constructionist View*, Lund: Studentlitteratur, 1993
- Durkheim, E., *Elementary Forms of Religious Life*, tr. Swain, J.W., London: Allen & Unwin, 1915
- Dwyer, Schurr and Oh, "Developing Buyer-Seller Relationships", *Journal of Marketing*, Vol. 51, pp. 11-27, April 1987
- Easton, G., "Industrial networks: a review", in Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 1-27, 1992
- Emerson, R., "Power-dependence relations", *American Sociological Review*, Vol 27, No. 1, pp. 31-41, 1962
- Emerson, R. M., "Exchange Theory, Part I: A Psychological Basis for Social Exchange", In: Zelditch, M. and Anderson, B.(eds.), *Sociological Theories in Progress*, 2, Boston: Houghton Mifflin, pp. 38-57, 1972
- Emerson, R. M., "Exchange Theory, Part I: Exchange Relations and Network Structures", In: Zelditch, M. and Anderson, B.(eds.), *Sociological Theories in Progress*, 2, Boston: Houghton Mifflin, pp. 58-87, 1972
- Emerson, R., "Toward a theory of value in social exchange", in Cook, K.S.(ed.), *Social Exchange Theory*, Beverly Hills, 1976
- Emerson, R. M., "Social Exchange Theory", In: Rosenberg, M. and Turner, R. (eds.), *Social Psychology: Sociological Perspectives*, New York: Basic Books, pp. 30-65, 1981
- Ford, D., Håkansson, H. and Johansson, J., "How do Companies Interact?", *Industrial Marketing and Purchasing*, Vol 1, No 1, pp. 26-41, 1986

- Ford, D.(ed.), *Understanding Business Markets - Interactions, Relationships, Networks*, London: Academic Press, 1990
- Gadamer, *Truth and Method* (Wahrheit und Methode), English translation, Tubingen, 1960
- Gadde, L-E, *Distributionsstrategier på producentvarumarknader*, Stockholm: Marketing Technology Center, Report no. 13, 1980
- Gadde, L-E, *Evolution Processes in Distribution Networks*, paper presented at the 7th IMP Conference, Uppsala, September 6-8, 1991
- Gadde, L-E. and Håkansson, H., "Analysing change and stability in distribution channels - A network approach", In: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 166-179, 1992
- Gadde, L-E. and Mattsson, L-G., "Analyzing Dynamics in Distribution", Paper presented at the 9th IMP Conference School of Management, University of Bath, September 1993
- Gattorna, J., "Channels of Distribution Conceptualizations: A State-of-the-Art Review", *European Journal of Marketing*, Vol 12 No. 8, pp. 471-512, 1978
- Geertz, C., *The Interpretation of Cultures*, New York: Basic Books, 1973
- Giddens, A., *Central Problems in Social Theory*, London: Macmillan, 1979
- Giddens, A., *The Constitution of Society*, Cambridge: Polity Press, 1984
- Giddens, A., *The Constitution of Society: Outline of the Theory of Structuration*, Berkeley, CA: University of California Press, 1984
- Giddens, A., *The Consequences of Modernity*, Cambridge: Polity Press, 1990
- Giddens, A., *New Rules of Sociological Method* (2nd ed.), Stanford: Stanford University Press, 1993
- Glaser, B.G. and Strauss, A. L., *The Discovery of Grounded Theory*, Chicago: Aldine, 1968
- Glaser, S., "The Marketing System and the Environment", *European Journal Of Marketing*, Vol. 19, No. 4, pp. 54-72, 1985
- Glassman, R. B., "Persistence and Loose Coupling in Living Systems", *Behavioral Science*, Vol. 18, pp. 83-89, 1973
- Goffman, E., *Frame Analysis*, New York, 1974
- Grönmo, S. and Ölander, F., "Micro-macro relationships in the study of time and consumption", In: Antonides, G., Arts, W. and van Raaij, W.F.(eds.), *The Consumption of Time and the Timing of Consumption - Toward a New Behavioral and Socio-Economics*, Amsterdam: North-Holland, 1991
- Guba, E.G., "The context of emergent pradigm research". In: Lincoln, Y.S.(ed.), *Organizational theory and inquiry: The paradigm revolution.*, Beverly Hills, CA: Sage, 1985
- Hallén, L., Johansson, J. and Seyed-Mohamed, N. "Interfirm Adaptation in Business Relationships", *Journal of Marketing*, Vol 55, pp. 29-37, April 1991
- Hammarkvist, K-O, Håkansson, H. and Mattsson, L-G, *Marknadsföring för konkurrenskraft*, Malmö: Liber, 1982
- Henders, B., *Positions in Industrial Networks - Marketing Newsprint in the UK*, Department of Business Studies, Uppsala University, Uppsala, 1992
- Hertz, S., *The Internationalization Processes of Freight Transport Companies*, Economic Research Institute, Stockholm, 1993

- Hernes, G., "Structural Change in Social Processes", *American Journal of Sociology*, Vol. 82, pp. 513-545 November 1976
- Hinings, C. R. and Greenwood, R., *The Dynamics of Strategic Change*, Oxford: Basil Blackwell, 1988
- Hoeg, P., *Berättelser om natten*, Stockholm: Norstedts Förlag, 1994
- Hollander, S.C., "The Wheel of Retailing", *Journal of Retailing*, Vol. 24, pp. 37-48, July 1960
- Homans, G. C., "Social Behaviour as Exchange", *American Journal of Sociology*, 63, pp. 597-606, May 1958
- Howard, J., *Marketing: Executive and Buyer Behavior*, New York: Columbia University Press, 1963.
- Howard, J. and Sheth, J., *The Theory of Buyer Behavior*, New York: Wiley, 1969
- Håkansson, H.(ed.), *International Marketing and Purchasing of Industrial Goods - An Interaction Approach*, Chichester: Wiley, 1982
- Håkansson, H.(ed.), *Industrial Technological Development - A Network Approach*, London: Croom Helm, 1987
- Håkansson, H. and Johanson, J., "A model of industrial networks", In: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 28-34, 1992
- Johanson, J. and Mattsson, L-G, "Internationalization in Industrial Systems - A Network Approach". Paper presented at Prince Bertil Symposium, Nov.7-9 at the Stockholm School of Economics, Stockholm, 1984. Reprinted in: Hood, N. and Vahlne, J-E.(eds.), *Strategies in Global Competition*, New Hampshire: Croom Helm, pp. 287-314, 1987
- Johanson, J. and Mattsson, L-G., "Interorganisational Relations in Industrial Systems: A Network Approach Compared with a Transaction Cost Approach", *International Studies of Management Organisation*, Vol 17, No 1, pp. 34-48, 1987
- Johanson, J. and Mattsson, L-G., "Network positions and strategic action - an analytical framework", In: Axelsson, B. and Easton, G.(eds.), *Industrial Networks - A New View of Reality*, London: Routledge, pp. 205-217, 1992
- Johnston, A.V., "Revolution by Involvement", *Accounting Age*, 7(36), September, 1975
- Johnson, G., *Managing Strategic Change*, Oxford: Blackwell, 1987
- Kahneman, D. and Tversky, A., "Intuitive Prediction and Corrective Procedures", In: Kahneman, D., Slovic, P. and Tversky, A.(eds.), *Judgement under Uncertainty: Heuristics and Biases*. Cambridge: Cambridge University Press, 1982
- Kelley, H. H. and Thibaut, J. W., *Interpersonal Relations: A Theory of Interdependence*, New: Wiley, 1978
- Kelley, H. H., "The Situational Origins of Human Tendencies: A Further Reason for the Formal Analysis of Structures", *Personality and Social Psychology Bulletin*, 9, pp. 8-30, March 1983
- Kjellberg, H., Lundgren, A. and Mattsson, L-G., "Formal Relationships and Activity Structures in Industrial Networks", paper presented at the 9th IMP Conference, Bath, September 1993
- Kotler, P., *Marketing Management*, Englewood Cliffs: Prentice-Hall, 1967
- Kotler, P., *Marketing Management. Analysis, Planning, Implementation, and Control*, (eighth ed.) Englewood Cliffs: Prentice-Hall, 1994
- Kotler, P., "A Generic Concept of Marketing", *Journal of Marketing*, Vol.36, pp. 46-54, April 1972

- Lindblom, C.E., "The Science of Muddling Through", *Public Administration Review*, Vol.19, pp.79-88, 1959
- Lindblom, C.E., *The Policy-Making Process*, Englewood Cliffs: Prentice-Hall, 1968
- Lundgren, A., *Technological Innovation and Industrial Evolution - The Emergence of Industrial Networks*, Stockholm: EFI, 1991
- March, J. G. and Simon, H.A., *Organizations*, New York: Wiley, 1958
- March, J.G., "Footnotes to Organizational Change", *Administrative Science Quarterly*, 26, pp. 563-577, 1981
- March, J.G., *Decisions and Organizations*, Oxford: Blackwell, 1988
- Mattsson, L-G., "Management of Strategic Change in a 'Markets-as-Networks' Perspective", in: Pettigrew, A., *The Management of Strategic Change*, Oxford: Basil Blackwell, 1987
- Mattsson, L-G., Andersson, P., Gadde, L-E. and Öberg, M., "Reorganizing Distribution for Total Performance - The Manufacturing Viewpoint", *IMVP International Policy Forum*, conference paper, May 1989
- Mattsson, L-G., *Marketing Perspectives and International Business*, paper prepared for the conference on "Perspectives on International Business: Theory, Research and Institutional Arrangements", University of South Carolina, May 21-23, 1992. Reprint: "Exchange Approaches and Marketing's Contribution to International Business Research", in: Toyne, B. and Nigh, D. (eds.), *International Business Inquiry: An Emerging Vision*, South Carolina: University of South Carolina Press, 1995-96 (forthcoming)
- Mattsson, L-G, "Dynamics of Overlapping Networks and Strategic Actions by the International Firm", to be published in: Chandler, Hagström and Sölvell (eds.), *The Dynamic Firm*, Oxford: Oxford University Press, 1996 (forthcoming).
- McCarthy, E.J and Perreault Jr., W.D. *Basic Marketing* (ninth ed.), Homewood Ill.: Richard D. Irwin, 1987
- McGarry, E., "Some Functions of Marketing Reconsidered" in *Theory in Marketing*, Alderson, W. and Cox, R. (eds.), Chicago, Ill.:Richard D. Irwin, 1950
- Mead, G.H.,*Mind, Self, and Society*, Chicago, 1934
- Merriam, S.B., *Fallstudien som forskningsmetod*, (translation of *Case Study Research in Education*, San Francisco: Jossey-Bass Inc., 1988), Lund: Studentlitteratur, 1994
- Miller, D., "Evolution and Revolution: A Quantum View of Structural Change in Organizations", *Journal of Management Studies*, 19(2), pp. 131-151, 1982
- Miller, D. and Friesen, P., "Structural Change and Performance: Quantum v's Piecemeal-Incremental Approaches", *Academy of Management Journal*, 25 (4), pp. 867-892, 1982
- Mintzberg, H., "Strategy-Making in Three Modes", *California management Review*, Vol.16, pp. 44-53, 1973
- Mintzberg, H., "Patterns in Strategy Formation", *Management Science*, Vol. 24, pp. 934-948, 1978
- Mintzberg, H.,*The Structuring of Organizations*, Englewood Cliffs: Prentice Hall, 1979
- Mintzberg, H. and Waters, J., "Tracking Strategy in an Entrepreneurial Firm", *Academy of Management Journal*, 25 (3), pp. 465-499, 1982
- Mintzberg, H. and Waters, J., "Of Strategies, Deliberate, and Emergent", *Strategic Management Journal*, Vol.6., pp. 257-272, 1985

- Mintzberg, H., "Strategy Formation: Schools of Thought", in Fredrickson, J.(ed.), *Perspectives on Strategic Management*, New York: Harper&Row, pp. 105-236, 1990
- Mulford, C.L. and Rogers, D.L., "Definitions and Models" (chapter 2), in: Rogers, D.L. and Whetten, D.A., *Interorganizational Coordination: Theory, Research, and Implementation*, Ames, Iowa: The Iowa State University Press, 1982
- Nevelt, T., "Historical Investigation and the Practice of Marketing", *Journal of Marketing*, Vol. 55, pp. 13-23, July 1991
- Orton, J.D. and Weick, K.E., "Loosely Coupled Systems: A Reconceptualization", *Academy of Management Review*, Vol. 15, No 2, pp. 202-223, 1990
- Pettigrew, A., *The Awakening Giant - Continuity and Change in ICI*, Oxford: Basil Blackwell, 1985
- Pettigrew, A., "Context and Action in the Transformation of the Firm", *Journal of Management Studies*, Vol.24, pp. 649-670, 1987
- Pettigrew, A., *The Management of Strategic Change*, Oxford: Basil Blackwell, 1987
- Pettigrew, A. and Whipp, R., *Managing Change for Competitive Success*, Oxford: Blackwell, 1991
- Pfeffer, J., *Managing with Power*, Boston: Harvard Business School Press, 1992
- Pfeffer, J. and Salancik, G., *The External Control of Organizations*, New York: Harper & Row, 1978
- Pieters, R. and Verplanken, B., "Changing our mind about behavior", In: Antonides, G., Arts, W. and van Raaij, W.F.(eds.), *The Consumption of Time and the Timing of Consumption - Toward a New Behavioral and Socio-Economics*, Amsterdam: North-Holland, 1991
- Platt, J., "Cases of cases...of cases", In: Ragin and Becker(eds.), *What is a Case - Exploring the Foundations of Social Enquiry*, Cambridge: Cambridge University Press, pp. 21-52, 1992
- Popper, Karl, R., *The Logic of Scientific Discovery*, New York: Harper and Row, 1959
- Porter, M., *Competitive Advantage: Creating and Sustaining Superior Performance*, New York: Free Press, 1980
- Powell, W.W., "Neither Market Nor Hierarchy: Network Forms of Organizations", in: Staw, B. M. and Cummings, L. L., *Research in Organizational Behavior*, Greenwich, CT: JAI Press, pp. 295-336, 1990
- Quinn, J. B., *Strategies for Change: Logical Incrementalism*, Homewood Ill.: Irwin, 1980
- Ragin, C., "Introduction: Cases of 'What is a case' ", In: Ragin and Becker(eds.), *What is a Case - Exploring the Foundations of Social Enquiry*, Cambridge: Cambridge University Press, pp. 1-17, 1992
- Ragin, C.C., " 'Casing' and the process of social inquiry", In: Ragin and Becker(eds.), *What is a Case - Exploring the Foundations of Social Enquiry*, Cambridge: Cambridge University Press, pp. 217-226, 1992
- Ricoeur, P., *Time and Narrative* (Vol.1-3, transl.), Chicago: The University of Chicago Press, 1984 (vol.1), 1985 (vol.2), 1988 (vol.3)
- Savitt, R. "Historical research in marketing", *Journal of Marketing*, Vol. 44, pp. 52-58, Fall 1980
- Scott, W.R., *Organizations. Rational, Natural and Open Systems* (third ed.), Englewood Cliffs, N.J.: Prentice-Hall, 1992
- Selznick, P., *Leadership in Administration*, New York:Harper&Row, 1957
- Shaw, A., "Some Problems in Market Distribution", *Quarterly Journal of Economics*, Vol.26, pp. 703-765, 1912

- Weick, K.E., "Management of Organizational Change among Loosely Coupled Elements", in: Goodman, P.S. et al (eds.), *Change in Organizations*, San Francisco: Jossey-Bass, pp. 375-408, 1982
- West, A., *Managing Distribution and Change*, Chichester: John Wiley & Sons, 1989
- Whipp et al, "Understanding Strategic Change Processes: Some Preliminary Findings", In: Pettigrew, A. (ed.), *The Management of Strategic Change*, Oxford: Blackwell, pp. 14-55, 1987
- Whipp, R., Rosenfeld, R. and Pettigrew, A., "Understanding Strategic Change Processes: Some Preliminary British Findings", in Pettigrew, A.(ed.), *The Management of Strategic Change*, Oxford: Blackwell, pp. 561-585 1987
- White, H., *Metahistory*, Baltimore: Johns Hopkins University Press, 1973
- Williamson, O.E., *Markets and Hierarchies: Analysis and Antitrust Implications*, New York: The Free Press, 1975
- Winston, G., *The timing of economic activities - Firms, households, and markets in time-specific analysis*, Cambridge: Cambridge University Press, 1982
- Wood, D. (ed.), *On Paul Ricoeur - Narrative and Interpretation*, London: Routledge, 1991
- Yin, R.K., *Case Study Research. Design and Methods* (2nd ed.), Thousand Oaks, Ca.: SAGE Publications Inc., 1994
- Zeitz, G., "Interorganizational Dialectics", *Administrative Science Quarterly*, Vol.25, pp. 72-88, March 1980

Appendices

1. Selected marketing channel theories 1954-1981
2. Implications of loose and tight couplings - a summary

- Sheth, J.N. and Garrett, D.E.(eds.), *Marketing Theory: Classic and Contemporary Readings*, Cincinnati: South-Western Publishing Co, 1986
- Shils, E., *Tradition*, University of Chicago: Chicago Press, p. 327, 1981
- Snehota, I., *Notes on a Theory of Business Enterprise*, PhD thesis, Department of Business Studies, University of Uppsala, 1990
- Sorokin, P., *Social and Cultural Dynamics*, New York: American Book Company, 1937
- Starbuck, W., "Organizations and Their Environments", in Dunnette, M. D. (ed.), *Handbook of Industrial and Organizational Psychology*, Chicago: Rand McNally, 1976
- Stein, J., *Strategy Formation and Managerial Agency*, The Economic Research Institute, Stockholm School of Economics, 1993
- Stern, L.W. and Reve, T., "Distribution Channels as Political Economies: A Framework for Comparative Analysis", *Journal of Marketing*, Vol. 44, pp. 52-64, Summer 1980
- Stern, L.W. and El-Ansary, A.I., *Marketing Channels*, Englewood Cliffs: Prentice-Hall, 1988 (3rd ed.), 1992 (4th ed.)
- Stern, L.W., Sturdivant, F.D. & Getz, G.A., "Accomplishing Marketing Channel Change: Paths and Pitfalls", *European Management Journal*, Vol. 11, No.1, pp. 1-8, 1993
- Sztompka, P., *The Sociology of Social Change*, Oxford: Blackwell, 1993
- Thompson, J.D., *Organizations in Action*, New York: McGraw-Hill, 1967
- Thurén, T., *Orientering i källkritik*, Stockholm: Almqvist & Wiksell, 1986
- Turner, J. H., *A Theory of Social Interaction*, Stanford: Stanford University Press, 1988
- Turner, R., "Strategy for developing an integrated role theory", *Humboldt Journal of Social Relations*, 7, pp. 114-122, Fall/Winter, 1979
- Urban, D.J., "Organizational Development: A New Direction For Marketing Channel Research", *European Journal of Marketing*, Vol. 23 No. 6, pp. 38-54, 1988
- Vaile, R.S., Grether, E.T. and Cox, R., *Marketing in the American Economy*, New York: Ronald Press, pp. 134-150, 1952
- Vaughan, D., "Theory elaboration: the heuristics of case analysis", In: Ragin and Becker(eds.), *What is a Case - Exploring the Foundations of Social Enquiry*, Cambridge: Cambridge University Press, pp. 173-202, 1992
- Walton, J., "Making the theoretical case", In: Ragin and Becker(eds.), *What is a Case - Exploring the Foundations of Social Enquiry*, Cambridge: Cambridge University Press, pp. 121-137, 1992
- Waluszewski, A., *Framväxten av en ny massateknik - En utvecklingshistoria*, Department of Business Studies, Uppsala University, 1989
- Weber, M., *Economy and Society: An Outline of Interpretative Sociology*, In: Roth&Wittich (eds.), Berkeley, CA, 1978
- Webster, Jr, F.E., *Industrial Marketing Strategy*, New York: Wiley, pp. 221-222, 1991
- Weick, K.E., *The Social Psychology of Organizing*, New York: Random House, 1969
- Weick, K. E., "Educational Organizations as Loosely Coupled Systems", *Administrative Science Quarterly*, Vol. 21, pp. 1-19, 1976

APPENDIX 1 Selected marketing channel theories 1954-1981 (The list illustrates mainly column one in table 2.1. The political economy model (number 16) serves as an illustration of column two. As noted in chapter two, Alderson's models and reasoning (number 11 in the list) have elements that belong to all three columns in table. 2.1.)

Theoretical/analytical base	Reference	Analytical model	Change focus/ focal issue	Focal elements/ building blocks	Driving forces of change	Type of change
1. Logistics, (quantitative) system analysis	Cox & Goodman (1956)	"Effectiveness of commodity flows"	Organization and structure of physical flows	Commodities	Effectiveness maximization. Cost minimization	-----
2. Micro-economics	Bucklin (1966)	"Postponement - speculation"	Institutional; channel organization structure ship and risk taking)	Inventories and products, marketing functions (ownership)	Efficiency maximization. Cost minimization	Long-term adaptation to static equilibrium
3. Micro-economics	Bucklin (1966)	"Channel structure and output level"	Institutional structure and organization of marketing functions	Marketing functions. Levels of service outputs	Total cost minimization, service output/effectiveness optimization, competition	- " -
4. Micro-economics	Bucklin (1966)	"The principle of search"	Institutional; channel organization structure	Communication, activities/contacts, ownership/title flows	Minimization of contact costs, optimization of number of contacts	- " -
5. Micro-economics	Bucklin (1966)	"The principle of sorting"	Institutional; channel organization structure, product assortment	Product assortment, physical flows	Cost minimization, optimization of sorting function	- " -
6. Micro-economics, structural functionalism	Mallen (1967)	"Functional spin-off"	Division of labor, institutional channel structure (number of channels, levels, middlemen at each level)	Marketing functions	Cost minimization, maximization of external economies, competition	(Long-term) vertical integration/disintegration, move towards temporary optimum
7. Micro-economics, structural functionalism	Bucklin (1960, 1967)	"The functional structure of distribution channels"	Functional structure (configuration of independent/integrated functions)	Marketing functions (transit, inventory, search, persuasion, production)	Cost minimization	(Long-term) integration and separation of functions

Theoretical/analytical base	Reference	Analytical model	Change focus/ focal issue	Focal elements/ building blocks	Driving forces of change	Type of change
8. Functionalism (microeconomics)	Alderson (1954)	"Origin and development of marketing channels"	Functional and institutional structure	Marketing functions (shaping, fitting, sorting (= sorting out, accumulation, allocation, assorting))	Efficiency improvements of sorting process, transaction cost minimization through routinization	(Long-term) "matching" of supply and demand
9. Institutional structuralism	Breyer (1964)	"Structural formation and growth of marketing channels"	Institutional structures; formation of channels and channel groups	Single institutions, single channels, channel groups	Effectiveness maximization, maximization of long-run profits	(Long-term) formation and growth of channel groups (+ continuous adaptation to changes in market demand patterns, product innovations and entrepreneurial activities)
10. Institutional structuralism	Balderston (1957)	"Development of (optimal intermediate) channel structure"	Number and types of intermediaries (adapted to number and types of suppliers, customers and type of marketing tasks)	Communication, linkages, customers, suppliers and intermediaries	Minimization of total communication network costs, maximization of total economic long-run profit	(Long-term) adaptation of internal contact network and inst. structure, (long-term) adaptation to environmental shifts (in technology, demand etc.)
11. Systems theory (+ behavioural theory, micro-economics etc.)	Alderson (1957, 1965)	"Dynamics of market organization". "Evolution of organized behaviour systems"	The organization of system elements, interaction between system elements	Transactions and transvections (1957), Behaviour and expectations (1965)	A variety of driving forces: economic, technological, behavioural	Evolutionary, ecological system change

Theoretical/analytical base	Reference	Analytical model	Change focus/ focal issue	Focal elements/ building blocks	Driving forces of change	Type of change
12. Administrative organization theory/ systems theory	Ridgeway (1957)	"Administration of integrated manufacturer-dealer systems"	Systemtic, administrative functions	Actors: manufacturers, dealers. Administrative control functions	Drive towards effective administration of system as a whole	Successive, adaptive administrative process of coordination and control
13. Sociology, institutional economics, organization theory, systems theory	MacCammon (1964)	"Innovation and diffusion of new types of channel structure". "Channel change and evolution"	Institutional structure, organizational forms and marketing practices	Innovators, marketing innovations; practices and organizational forms	Search for differential advantages, adaptations to environmental changes, innovative competition	Successive, processual adaptation. Evolutionary process of innovation and diffusion of innovation
14. Institutional economics, life-cycle theories, "diffusion of innovation" models	Hollander (1960, 1964)	"The wheel of retailing"	Forms of retailing: practices and institutional structures	Innovators. Retailing institutions	Search for differential advantage. Growth and innovative behaviour. Competition on cost.	Evolutionary, life, cycle based change; growth, development, change and extinction
15. Ecological systems theory, conflict theory, functionalism	Markin & Duncan (1981)	"The transformation of retailing institutions"	Forms of retailing: practices and institutional structures	Retailing institutions. Environmental factors	System adaptation to environments in order to achieve equilibrium and long-term survival	Evolutionary, long-term transformation, long-term system/environment adaptation

Theoretical/analytical base	Reference	Analytical model	Change focus/ focal issue	Focal elements/ building blocks	Driving forces of change	Type of change
16. Transaction cost economics, sociology, social exchange theory, conflict theory	Stern & Reve (1980)	"Distribution channels as political economies"	Internal (channel) economic and socio-political structures and processes. External economic and socio-political environment	Channel dyads. Vertical economic arrangement and decision mechanisms, cooperation-conflict sentiments, power-dependence relations	Transactional efficiency and effectiveness. Adaptation between channel and environmental processes and structures	Successive intra-channel coordination and adaptation through interaction. System/environmental adaptation through interaction

APPENDIX 2.

Implications of loose and tight couplings - a summary

The moving context of industrial marketing actions is discussed in terms of seven outcomes of tight and loose couplings in industrial networks. Change actions take place in a stable and changing context where tensions between the two induce important, long-term trade-offs and interdependencies. Building on theoretical accounts and examples from the case study, general advantages and disadvantages (i.e. functions and dysfunctions) of loose and tight couplings are discussed. Seven outcomes guide the description of stability and change:¹

Outcomes:

1. "System persistence" and "system responsiveness"
2. "Requisite variety with selective sensing" and "protection against production of faddish responses"
3. "Localized adaptation" and "systemwide standardization"
4. "Buffering of disturbances" and "reparation of defective elements"
5. "Adaptability/diversified responses" and "adaptation efficiency"
6. "Behavioral discretion with self-determination" and "centralized control with longer chains of consequences"
7. "System modularity" and "system integration with division of work efficiency"

1. "System persistence" and "system responsiveness"

Implications of loose coupling:

Loose coupling can create variation by allowing parts of the network to persist and evolve independently of other parts. All component parts of the network need not come together in a new adaptive state at the same time in change processes. However, while fostering perseverance, loosely coupled parts are not selective in what is perpetuated, and thus may permit the retention of archaic traditions as well as adaptive changes. Persistence may also foster stability based on resistance to change and continued operation, making the network less sensitive to systemwide change.

Implications of tight coupling:

Tight coupling can create variation while it increases the probability that the tightly coupled part will respond to internal changes occurring. Tight coupling allows for more open selection of what internal innovative changes that should be selected and adapted to. Negative outcomes of tight coupling in connection with change can be linked to the probability that all elements of the tightly coupled part of the network will have to change simultaneously, occasionally making it sensitive to failure. Adaptation and responsiveness to internal changes and new innovations can be quick and efficient.

Possible trade-offs in connection with change:

An actor or group of actors choosing to "tighten up" relationships in order to facilitate adaptation and internal responsiveness based on stability and continuous change can have to trade this for increased sensitivity to later, systemwide changes. Tighter coupling can improve possibilities to plan, predict and

¹Theoretical discussions are collected from: Glassman, R. B., "Persistence and Loose Coupling in Living Systems", *Behavioral Science*, Vol. 18, pp. 83-89, 1973, Weick, K. E., "Educational Organizations as Loosely Coupled Systems", *Administrative Science Quarterly*, Vol. 21, pp. 1-19, 1976, and Orton, J.D. and Weick, K.E., "Loosely Coupled Systems: A Reconceptualization", *Academy of Management Review*, Vol. 15, No 2, pp. 202-223, 1990. The discussions have been applied to marketing in: Andersson, P., "Analysing distribution channel dynamics: Loose and tight couplings in distribution networks", *European Journal of Marketing*, Vol. 26. No. 2, pp. 47-68, 1992.

control purposive changes, but actors might have to trade this for the positive effects of looser coupling where reduced responsiveness to changes might increase long-term persistence and independence.

Possible interdependencies in connection with change:

The pursuance of loose coupling in parts of a network and stability based on localized persistence might only be possible through continued or increased tightening of relationships in other parts of the network. Likewise, the tightening of relationships, e.g. through direction of resources to some focal, chosen relationships, might only be possible if loose couplings persist or are created in other parts of the network. Variations through continuous adaptations in the tightly coupled part of the network can be dependent on the stability which more loosely coupled parts of the network contribute while evolving semi-autonomously in relation to other parts of the network.

Exemplification:

After 1992, when Pharmacia Biotech is created, the process to decouple central and local biotech units takes off. The aim of the decoupling process, creating much looser coupling between the biotech units on the one side and the pharmaceutical-diagnostics units on the other, is to increase the "vertical" system responsiveness through tighter couplings between the now more independent biotech units. Formerly, each local national subsidiary has been able to persist by developing its own local position based on loosely coupled internal and external relations of the pharmaceutical, diagnostics and biotech units. Loosening the couplings to the actors, activities and resources of the diagnostics and pharmaceutical units can be assumed to be a prerequisite for tightening the connections in the vertical biotech channel.

2. "Requisite variety with selective sensing" and "protection against production of faddish responses"

Implications of loose coupling:

Variety can be a direct effect of loose coupling as loosely coupled elements can serve as a medium to register inputs from the environment. Registering can improve when the system elements become more numerous, less internally constrained and less interdependent. Thus, the more loosely coupled parts of a system can foster variation while they can preserve more independent sensing elements. On the other hand, the negative consequences of loose coupling and less constraints can be an increased vulnerability to producing short-lived, faddish responses to the changes in the environment. Thus, the loosely coupled part may be more exposed to the influence of transitory fads in the surrounding system.

Implications of tight coupling:

Tight coupling between the elements of a system can protect it from producing responses to short-lived, faddish changes in the surrounding system. A higher degree of internal connectedness of a fewer, tightly coupled elements allows the system to maintain stability by being less sensitive to these changes. However, balanced against this is the risk that tight couplings can create "internalized" systems with few externally oriented, semi-autonomous elements to register changes and create variation.

Possible trade-offs in connection with change:

An actor or group of actors aiming to increase stability in the system by reducing the number of actors and increasing the connections and integration between the remaining actors, might have to trade the efficiency gained for decreased sensitivity and responsiveness to changes outside the group. A stable system with many internal connections can increase its registering of external changes by e.g. decreasing the number of connections between the tightly coupled actors or by increasing the number of actors (elements) in the system. This, however, can increase the risk for losses of efficiency and can also increase the risk that the loosely coupled actors engage in adaptive actions to peripheral changes with little long-term importance for the system or network.

Possible interdependencies in connection with change:

It is possible to conceive of situations where the creation of an increased number of connections between actors within a system (horizontal and or vertical connections), can be achieved only if the actors are allowed to keep or establish loosely coupled connections to actors peripheral to the system. The latter can be necessary links for keeping the system's sensitivity to external changes and for keeping the overall network stability by allowing a certain degree of flexibility regarding the "externally" oriented contacts. It is also possible to conceive of this interdependency as working in the opposite direction. The variety which can be created through the registration of changes in loosely coupled parts can only be achieved if certain tightly coupled parts are kept apart and allowed to ignore the continuous changes registered. The long-term stability of the tightly coupled parts creates the necessary continuity which is needed for an increased sensitivity in other parts of the network.

Exemplification:

In 1991, Pharmacia BTG's new After Sales Division finds itself in the situation of having to cope with very loose couplings to subsidiaries and to customers, resulting in a line of "faddish responses" to several, coordinated attempts to introduce new service routines. However, the change process does not start from zero; the loose couplings between the central instrument service unit and the local subsidiaries' service, sales and management units has over the years allowed (and necessitated) the latter, local units to develop a variety of organizational and operational structures, responding selectively to various central mobilization efforts and to what is perceived as the local customers' specific service requirements. The increased tightening of relationships decreases the possibilities for local units to produce faddish responses to mobilization attempts from central units. Concurrently, it also decreases the opportunities to select what centrally developed change contents to respond to.

3. "Localized adaptation" and "systemwide standardization"

Implications of loose coupling:

Loose coupling can allow for local adaptations of system units to an environment that in the aggregate pose conflicting demands. Loosely coupled units can contribute to systemwide stability by adjusting to local circumstances without affecting the whole system, i.e. the rest of the system can function with greater stability. This can also contribute to lowering coordination costs for the system. Loose coupling can contribute both to stability and to an increased variability by allowing local units to adapt to partly conflicting demands in the system. The local adaptation contributes to creating variation in the system. However, by allowing a high degree of localized adaptation the system can lose some of its ability to develop and spread desired systemwide changes. The frequent and relatively easy local adjustments can be detrimental to system stability if scarce resources are used up and if the causal chains are so long that the central parts of the system cannot monitor and influence the local adaptations.

Implications of tight couplings:

As an antithesis to loose couplings and localized adaptation a tightly coupled system can exhibit more of the benefits linked to standardization. Internal system stability can be one the obvious outcomes of system-wide standardization. Aspects of internal efficiency can be one motivation for such standardization. Change interventions aimed for the whole system are likely to have large effects. Information on local changes can spread quickly in a tightly coupled system. On the other hand, the opportunities to implement system-wide changes through tight couplings should be posited against its negative effects. If the context in which the system is embedded is highly heterogeneous, demanding a high degree of adaptability to local conditions, a highly standardized, tightly coupled system is less likely to be able to adapt as swiftly as a system with loose couplings between the units.

Possible trade-offs in connection with change:

The long-term effects of high degrees of local autonomy are not easily predicted. A central actor with the strategy to localize the control of many activities can find himself in the position in which a necessary system wide change becomes difficult to implement centrally. The positive effects of localized adaptations and variety creation in the system is balanced against the difficulties to standardize, stabilize and perform more efficiently some of the activities in the system. However, if the central actor starts from a situation where actors are tightly coupled, it is more likely that change actions will have large effects. The stability and efficiencies that accompany this tight coupling and which have been built up over time can, however, have lessened the actors' and the system's long-term ability to adapt to local changes.

Possible interdependencies in connection with change:

In times of radical change, systems with a high degree of loosely coupled, local actors and sub-systems might be good for allowing adaptation of the local units facing changing environments. It is likely that there is a limit to this local autonomy. The local adaptations can only be achieved successfully if other certain central parts or activities are kept stable. Otherwise the systems is likely to disintegrate and dissolve completely. If the aim is to increase sub-system adaptations by decreasing central control and coordination, it is only possible if certain activities or mechanisms of the relationships are kept stable, perhaps made even more tightly coupled between actors. The reverse change can also be conceived of, i.e. a central actor (actors) that sees the necessity to centralize control in order to achieve changes might have to rely on parts of the systems being loosely coupled, thereby increasing overall system stability at the same time that a certain degree of localized adaptation and variability is maintained. A change towards increased stability, tighter couplings between subsystems and actors, and centralized control can also be perceived to be a stepwise process, where the development towards increased, centralized integration is based on the interdependence between subsystems. The whole system cannot be integrated at once, while

certain parts are made more tightly coupled, others are kept loosely coupled and allowed to adapt locally. The stability of the whole system during the change is maintained by this interdependence between the focal integration process and the ongoing, semi-autonomous actions and activities of the still loosely coupled sub-systems and actors.

Exemplification:

The after sales episode (as well as other marketing change episodes) is initiated partly with the purpose to increase standardization of technical service operations. When the strategic change takes off, the loosely coupled, local service units have been allowed to develop a highly heterogeneous set of local service operations. The localized adaptations have been allowed to develop over the years and in order to be able to increase the control and the standardization, there is a need to develop tighter internal connections (e.g. with the help of direct interactions and three joint service conferences). However, in order to be able to tighten the internal links so that standardization concerning cost reporting, service contract sales etc., can be increased, the central service division has to be selective. It is necessary to take it in steps, increasing the contacts with some local unit, while leaving others for the time being. A certain degree of localized adaptations to customer specific demands have to be allowed in the standardization process.

4. "Buffering of disturbances" and "reparation of defective elements"

Implications of loose coupling:

An obvious stability creating outcome of loose coupling between system units is its effect on the ability to seal off disturbances and problems appearing. A problem, e.g. some kind of break down in some part of the system, can more easily be sealed off from the rest of the system if the troubled part is loosely coupled. I.e. problems do not have to affect the whole system. Although buffering cannot be complete, loose coupling can contribute to stability by limiting the disturbances. The obvious negative outcome of loose coupling in connection to this is the fact that it will be difficult for the other parts of the system, loosely coupled to failing part, to assist in the repair or to learn its difficulties in time to take corrective action.

Implications of tight coupling:

Tight couplings between system elements can increase the ability to swiftly react to and "repair" system elements in which problems appear. Problems appearing can be controlled through continuous adaptations, thereby avoiding problems to amplify. This in turn, can be the source of important variations in the system. However, if the tightly coupled system is not capable of dealing with the disturbance, the system can become sensible to negative, system wide ripple effects. The stability normally associated with tight couplings can be disrupted, followed by a period of radical system change.

Possible trade-offs in connection with change:

Actors aiming for increased system efficiency based on adaptations and increased integration can achieve this by successively integrating system elements. An increased "introvert" system behaviour will have opposite effects on the system's ability to register and buffer from disturbances appearing in more peripheral parts of the system. Thus, the form of continuous variation creating stability which loose coupling and buffering promotes will have to be traded for a stability based on integration and internal adaptations, which will be more sensible to system wide changes, unless problems cannot be buffered from and handled. On the other hand, actors which aim for a loosening of couplings in the system can let loosely coupled sub-systems handle partial buffering, while letting the rest of the system continue, little affected by the change. However, the lack of internal efficiency which might result is also coupled with risks that actors in the rest of the system will not be able to contribute to giving solutions to the appearing disturbances, or they will react to late to the change.

Possible interdependencies in connection with change:

Actors aiming to increase integration in one part of the system, e.g. in order to stabilize adaptive routines, might have to depend on more loosely coupled actors to buffer the tightening part from disturbances. While attention of the integrating actors is directed towards their part of the system, they will have to rely on the loosely coupled actors not directly involved, to handle the problems that might appear in other parts of the system during the integration process. The continuous, localized handling of problems and disturbances is buffered from the rest of the system through loose couplings, allowing it to function with a higher degree of stability. On the other hand, the potential for successfully coping with localized problems might be the stability which the tightly coupled actors contribute, despite the fact that they are loosely coupled to the local, problem affected, part of the system.

Exemplification:

It is argued in many parts of the emerging, joint BTG-LKB organization that the loose vertical couplings between local marketing subsidiaries and the central support and production organizations allow the local units to keep up sales and local customer contacts during the problematic fusion process. Disregarding from the local merger problems, the marketing subsidiaries are during the fusion process able to buffer from the many problems to merger the central marketing support and production organizations. Eventually, it leads to serious vertical coordination problems in distribution, but in the meantime the loose internal couplings serve the purpose of buffering from various disturbances.

5. "Adaptability with diversified responses" and "adaptation efficiency"

Implications of loose coupling:

Loose coupling in organizations, systems and networks can be important sources of adaptability. Loose coupling decreases the necessity for major changes. Change is more continuous and allows sub-units to perform local adjustments, keeping small problems from amplifying. Thus, adaptability is fostered and the small changes add up to create continuous variations. Adaptability can also contribute to the overall system stability by reducing the impact of disturbances, allowing the rest of the system to function with greater stability. The positive effects of loose coupling of sub-units in a system is a consequence of the fact that it allows the units to detect changes in the surrounding context, to adapt to local circumstances and to adapt to conflicting demands. On the other hand, the continuous internal adaptations which tightly coupled units can develop are more difficult to achieve between loosely coupled units.

Implications of tight couplings:

Tight coupling allows units in a system to improve adaptation. Changes within the tightly coupled system can be the result of minor adaptations, however, on the whole, these adaptation often further strengthen the tightness. Radical changes can appear as a consequence of adaptations based on firm interventions. These major, adaptive interventions are probably easier to execute in a system of tightly coupled units. However, these internal adaptations can also restrict the system to develop a certain degree of adaptability in relation to the surrounding context. This can result in a reduced capability to assimilate and accommodate of continuous changes, and a greater sensitivity to larger, and perhaps less desirable, changes.

Possible trade-offs in connection with change:

An important trade-off for actors in dynamic systems is related to decisions to exploit present opportunities through adaptations or to increase adaptability in order to be able to better exploit future opportunities. This can also be described as a trade-off between stability and flexibility in the system. Given a strong relationship between loose coupling and system flexibility, and tight coupling and system stability, it is possible to hypothesize a large number of situations where actors are confronted with this strategic trade-off. By tightening couplings e.g. by investing time and resources in a selected number of relationships with counterparts, actors can diminish the long-term opportunities - and flexibility - which other parts of the system can contribute. On the other hand, by loosening the couplings between actors in order to encourage localized adaptations and overall system adaptability, costs might increase, due to losses of efficiency in adaptation processes. Thus, in order to gain an increased sensitivity and flexibility built on localized adaptations and variability actors might have reduce the short-term stability which tightly coupled systems, based on adaptations and close contacts, contribute.

Possible interdependencies in connection with change:

On a systemic level, the trade-off between adaptation and adaptability can actually take the form of interdependencies. Thus, an actor aiming for increased system flexibility by letting actors in some parts of the system act more freely in relation to the rest of the system, can be supported by the stability and ongoing adaptations in other parts. In order for the semi-autonomous actors to be able to respond more freely to changes in the context, certain parts of the system must provide stability through adaptations. Total system flexibility would be disruptive as the the system would risk losing its identity and continuity. Likewise, actors aiming for increased stability with more intense, internal adaptation procedures will have to rely on loose couplings and flexibility to change, related to some actors in the system. Otherwise there is a risk that the introvert system - in case of a disruptive change in the context - will be unable to detect and react to the change in time. Perturbances in the context might even destabilize the whole, presently stable, system.

Exemplification:

After 1992, when the internal connections between biotech units is becoming tighter and more stable, the internal responses to mobilization and change efforts increases in all marketing change episodes. With the increased continuity of contacts and more frequent, information exchanges (direct, on-line contacts), the responses to changes and corrections of the new emerging operations are quicker and more efficient. Concurrently, the opportunities to develop the local adaptability decreases; standardization increases with the more efficient internal adaptation.

6. "Behavioral discretion with self-determination" and "centralized control with longer chains of consequences"

Implications of loose coupling:

A direct effect of loose coupling in systems is behavioural discretion, i.e. the capacity for certain degrees of autonomous action. Loosely coupled sub-unit are less restricted when it comes to creating and choosing alliances with units outside the focal system. This capacity for autonomous action is the source of important variations as the loosely coupled units and sub-systems have more room for self-determination regarding the choice of counterparts. However, the obvious negative effect is that the autonomy also shortens the chain of consequences flowing from each unit's efforts to implement change. That is, each unit will have to approach and influence every other counterpart more or less separately, not being able to make use of the opportunities of instant ripple effects in connection with changes.

Implications of tight couplings:

Tight couplings extends the chains of consequences that will flow between units in the system. Members of the tightly coupled part stabilize the system, while each semi-autonomous unit will be affected by and will have to react and adapt to each other unit's actions. The consequences of actions become less ambiguous, as each unit becomes semi-autonomously linked to the other units. Negative actions can be controlled and handled within the adaptive routines of the stable system. In contrast to this, change can be more difficult to achieve in tightly coupled systems where units are restricted to experiment and to develop a sense of efficacy. Units might feel restricted to act, imbuing the system with a destructive stability, or inertia.

Possible trade-offs in connection with change:

In order to balance the centralized control of tightly coupled systems, powerful actors might encourage a higher degree of autonomy in certain parts of the system. By loosening the couplings between certain units, creating a higher capacity for autonomous action, part of the stability of the system will be reduced. Furthermore, more room for certain actors to create their own alliances with actors outside the integrated sub-system opens up risks for changes and variations which are not in line with the rest of the system. Likewise, actors increasing integration between units, aiming to centralize actions and increase the control of successive changes, can have to trade this for the negative effects of restricted self-determination. It restricts the opportunities for actors to react to and take independent actions against disruptive changes in the context; changes whose effects on the system might have been reduced if actions had not been restricted.

Possible interdependencies in connection with change:

A system where the actors aim for an increased centralized control of actions might only be able to pursue this strategy by simultaneously disconnecting from or successively disintegrating certain actors or sub-systems. Increased centralized control can only be achieved if a certain degree of self-determination concerning actions and other counterparts is given to some actors in the system. By decreasing certain couplings and increasing certain aspects of autonomy, it is possible for the integrated sub-system to function more efficiently and with more stability in relation to changes appearing in the context. The semi-autonomous actions of the tightly coupled sub-system will be buffered from disturbances while the more loosely coupled parts raise their own involvement in the heterogeneous and conflicting changes appearing in more peripheral parts. To be able to survive the impact of these changes the loosely coupled actors need to strengthen the relationships with integrated sub-systems, providing the stability necessary for pursuing continued semi-independent action.

Exemplification:

In line with the preceding point, the increased, tighter internal couplings and efficient adaptations between biotech channel units (customers, local sales offices, regional office, central support, and production and R&D units), increases the opportunities to control the whole chain of actors and activities. The new central distribution and logistics support organization is able to integrate stronger the whole chain of activities, from production to installation. Later, the consequences of this increased integration is that

further modifications of the activity structure have immediate effects on the whole vertical chain of distribution activities. For local subsidiaries, it means a radical reduction of self-determination concerning distribution matters (the same applies to the after sales service operations). The trade-off is partly off-set by the fact that the former centralized control (most often Uppsala based) is regionalized. That is, the behavioural discretion with partial self-determination is regionalized to the four new regional units worldwide, with only loose couplings between the regions in 1993. (However, as the next strategic step, there emerge plans to strengthen the links also *between* the regions.)

7. "System modularity" and "system integration with division-of-work efficiency"

Implications of loose couplings:

By removing a number of "unnecessary" couplings between units in a system and by using loose couplings it is possible to increase the modularity in the system. That is, units can be combined and made to act in different constellations unrestricted by the tightness of a stable, highly specialized system. Modularity also embraces the potential to retain a great number of mutations - variations - and solutions to new problems appearing in the context. However, modularity demands a certain degree of autonomy and adaptability of the involved units, a flexibility which restricts the possibility to make use of the efficiencies and stability of a system with highly integrated and specialized units.

Implications of tight couplings:

A system where the units are tightly coupled and each unit is characterized by a high degree of specialization and differentiation, the unique combination can enhance the possibilities to develop internal division of work efficiency. Units have specialized tasks and efficiency is based on the stability of continuous internal adaptations. Changes between units are successive and mainly aiming to further strengthen and refine the established position of each unit. On the other hand, the tightly coupled system can also become less flexible when it comes to adapting to a wide range of changes in the context. Ultimately, this might lead to system breakdowns, unless the tightly coupled units are not able to restructure the system in order to better be able to handle the new contingencies.

Possible trade-offs in connection with change:

Actors which aim to increase the possibilities to act in a larger number of different constellations in relation to other actors and to changes in the context, need to develop a certain degree of autonomy. But by increasing the self-determination, they reduce the possibilities to establish a set of firm routines between the units. Increased costs due to the loosening of couplings can be the obvious negative outcome that has to be weighed against the increased modularity and flexibility. Likewise, if the actors' aim is to increase specialization and differentiation in the system by increasing integration and actor stability, it will have effects on the adaptability in relation to the demands of actors in the surrounding context.

Possible interdependencies in connection with change:

There is a limit to how flexible, or how "convertible", actors can be when it comes to forming groups for specific purposes. When developing some kind of partial modularity actors need to loosen up couplings in existing relationships, or alternatively, reducing the number of couplings in the system. In that way, actors reduce some of the restrictions on forming temporary and unique constellations for specific purposes and changes in the context. However, it is likely that some parts will have to be kept stable in order to retain some kind of continuity and identity in the system and to exploit regularities in the relationships. On the other hand, in order to create stability which can provide an economical means to handle regularities in the system, it is likely that this will be dependent on looser coupling which allows the system to adapt to the different demands of actors in the context. Actors need to be able, at least partially, to combine resources - create "modules" - for specific changes, thereby increasing system flexibility.

Exemplification:

Pharmacia Biotech's regionalization program entails steps in which the former country based subsidiaries are replaced by a regional office controlling a number of horizontally connected sub-regions with 3-4 sales offices in each sub-region. While the first steps of sub-regionalization increases the opportunities for the regional offices to work in loosely coupled, temporary constellations, the successively increasing stability of sub-regional, horizontal contacts leads to a more open division-of-work efficiency. The control over certain marketing support activities and resources are transferred between sales offices, decreasing the opportunities to create temporary constellations, "modules". Later, sub-regional resources are transferred also to the regional unit.

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