On Business Relationships as Darwinian Systems
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An exploration into how Darwinian systems thinking can support business relationship research
Abstract


The demarcation between different traditions in contemporary research on business relationships reflects theoretical and methodological difficulties in the conceptualization of the nature of business relationships and how such relationships evolve. To tackle these problems, this thesis explores the fruitfulness of regarding business relationships as Darwinian systems, which accentuates kinship between Darwinism and systems thinking, and elaborates a treatment of business relationship transmutation as an iterative dynamic process that does not take the existence of business relationships – or the sequence of developmental stages – for granted.

The thesis draws on findings in four essays as well as a stand-alone extended summary. These five parts complete the thesis. The discussion advances the idea that the tenets of systems thinking and of Generalized Darwinism are aligned and can provide a novel explanatory paradigm, although it takes marketing rigor to specify an emergent framework that conceptualizes the nature and evolution of business relationships. The concluding part elaborates the steps required for a more comprehensive Darwinian system theory of business relationships.

A main contribution of the thesis is the exploration of an emergent theoretical composite – new to marketing – that integrates systems thinking, Generalized Darwinism and established business relationship conjectures. The thesis asserts the importance of configurational fit; the interaction between variation-creation and selective preservation to form a full Darwinian story; and the meaning of a logical distinction between manifested characteristics and the underlying instructions directing the former. Furthermore, the firm–relationship–market system hierarchy outlined highlights the business relationship as an emergent organizational form at a level above that of the individual firm, stressing the importance of its dual nature and as an evolving system alike, thus endorsing research to tackle the central theoretical and methodological difficulties of business relationships’ nature and evolution.

Keywords: Marketing, Business Relationships, Systems Thinking, Philosophy of Science, Generalized Darwinism, Evolution.

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¹ The essay is (to a minor extent) based on Johansson T. and Kask J. “From flirting with biology to implementing an evolutionary ontology: towards an evolutionary theory of multichannel design”, presented at AUMEC, Antalya, Turkey, in April, 2009.

1. Introduction

This opening chapter introduces business relationships as the focal interest of this thesis, and the nature and evolution of these arrangements as the phenomena the thesis sets out to dissect. I then present Darwinism as a possible “new” explanatory paradigm for studying business relationships, and, thereafter, present the objectives of the thesis. The final part of this chapter outlines the structure of this thesis.

Across sectors and industries in free enterprise economies, firms aiming to thrive and be more competitive have long shown an interest in a voluntary pooling of sets of productive assets through organized inter-firm arrangements (Morgan & Hunt, 1994; Narus & Anderson, 1987), which we might call business relationships. Business relationships are often critical to the prosperity of firms, for example, to enhance profit (Palmatier, Dant, Grewal, & Evans, 2006), as a means of accessing market channels and buyers (Lee, Park, Yoon, & Park, 2010; Rosenbloom, 2007), as a way of reducing uncertainty (Håkansson, 1982), or as sources of new technology and productive knowledge (Kotabe, Martin, & Domoto, 2003).

Inquiring why business relationships are so important, researchers in marketing and parts of strategic management often agree that specialist firms engaged in cooperative ventures with other specialist firms outperform competitors that lack favorable ties to other firms (Hunt & Morgan, 1995). The reason highlighted is often efficiency – to economize on the division of labor, specialization and low transaction costs (see also, for example Cannon & Perreault Jr, 1999; Heide & John, 1992). With the idea of concentrating internal assets on some core tasks and accessing complementary markets and assets by means of business relationships, two collaborating firms attempt to edge forward in competitiveness (Lavie, 2006).

Stressing the importance of business relationships, parts of the strategic management literature has also produced extensive evidence concerning how benefits from collaborations are generated, and how these benefits are distributed between the two partnering firms in a relationship. For example, the effect of interdependency and bilateral efforts for the generation of benefits from collaboration is addressed, as is how the collaborating partners apportion those benefits (Dyer, Singh, & Kale, 2008).

Other streams of research in marketing and management focus on the determinants of asymmetric mutual dependency in business relationships (Pfeffer & Salancik, 1978), of bilateralist and opportunist actions (Das &
Rahman, 2010) and dissimilar acceptance of opportunism (Eyuboglu & Buja, 2007).

Many but not all of these works seem to be mainly occupied with addressing structure issues, or problems and opportunities that business relationships pose for the individual firm. Thus, these preoccupations in mainstream research on business relationships in marketing and strategic management fields seem to provide a limited insight into how the business relationships, as inter-firm organizational forms with particular characteristics, arise and evolve at an emergent level above that of the individual firm. However, it must be acknowledged that conceptualizations of the origin and dynamics of business relationships are not entirely new. For example, the standard answer to questions about the formation and preservation of business relationship would, from a transaction cost approach, be that firms cooperate in order to reduce transaction costs (Heide & John, 1992). And in the Markets-as-Networks tradition a typical answer would be that business relationships emerge, and change, out of interactions among partnering firms over time (Håkansson & Snehota, 1995; Prenkert & Hallén, 2006).

From the latter perspective, a business relationship is a manifestation of repeated interactions, and its characteristics are the connections between the actors, the resources and the activities. So, some ideas about how a business relationship begins, and about its developments, are identified. These attempts often borrow explanatory power from Transaction Cost Analysis (TCA) (Williamson, 1975) or from versions of Social Exchange Theory (SET) (see, for example, Thibaut & Kelley, 1959). I acknowledge these attempts, and will draw upon them to some extent later in this thesis. Nevertheless, the main starting point for this thesis is neither TCA nor SET, but a third, alternative, explanatory paradigm that has received increased attention in academic discussions in, for example, philosophy of science, management and economics to explain evolutionary processes in the social and behavioral sciences (Johansson & Siverbo, 2009; Klaes, 2004; Murmann, Aldrich, Levinthal, & Winter, 2003; Nelson & Winter, 1982; Richerson & Boyd, 2005; Sober, 1984; Stoelhorst, 2008d), but has not yet been used to conceptualize nature and evolution of business relationships. It is the frame of reference that draws on a Darwinian logic to explain the evolutionary molding of forms, features and characters of entities in socio-economic domains (see, for example, Hodgson & Knudsen, 2006; Stoelhorst, 2008a, b) that will be explored throughout this thesis.
As indicated above, a central rationale for emphasizing the nature and evolution of business relationships is because presenting an explanation of how the nature (composition) of the business relationship itself has been molded across time is often secondary or underresearched in the mainstream works (although attempts exist, as shown). In addition to the theoretically interesting aspect of exploring an alternative explanatory paradigm in a new setting, the nature and evolution of business relationships is a justifiable research theme on its own merits. That the forms and characteristics of firms’ relationships with other firms may transmute in the course of time should be an unproblematic statement. Much can change in firms, in markets or in society at large. If we play with the idea that everything is more or less interconnected, we then have to assume that changes in one entity have effects for the other components of the broader socio-economic system. Throughout the social sciences it has long been argued that there is a need for more longitudinal, dynamic or “evolutionary” research (Brennan, 2006; Breslin, 2008, Nelson & Winter, 1982; Veblen, 1898) in order to make us able to better understand and explain processes by which socio-economic entities transmute. Evolution is not merely a matter of new species and genetics. It is – many argue – literally a matter of the socio-economic realm too. Thus, in business relationship research, unless we are satisfied merely with knowing which asset combinations provide certain benefits, and knowing the characteristics of those internal assets most favorable for a large share of the pie and unilateral aspirations, more dynamism and process-oriented approaches are required in order to enrich the business relationship research field. With this thesis, I will contribute to this need.

Pertaining to how the justifiable question of the origin and evolution of business relationships may be answered, one simple answer would, presumably, be that managers decide to create and control business relationships. However, such simple and firm-centric answers largely miss something important. Such unidirectional causal explanations (of the type “managerial decision controls the relationship”) at an isolated level of analysis are design-wise not intended to capture the often far more complex results from dynamics on multiple levels, where the focal manager or firm are only to a limited extend in control of its own destiny (cf. Håkansson & Ford, 2002). Thus, that simple explanation does not account for how both partnering firms decide to engage in cooperation, nor what the resulting business relationship contains in terms of both manifested and underlying character features, or how the relationship might transmute in the course of
time after conception. It will instead be argued in this thesis that, in order
to explain the dynamics of business relationships, there is a need to concep-
tualize a business relationship as embedded in and interdependent of other
components of a multi-leveled system hierarchy. Accordingly, from the
position taken here, unidirectional or linear explanations are incomplete
and must be complemented.

It is assumed in this thesis that firms, business relationships and the lar-
ger market systems represent three different system levels, and that both the
ambitions and actions of firms, and the conditions in the larger market
systems inform the evolution of business relationships. However, the idea
of bringing the context into the analysis is not new in marketing and busi-
ness relationship studies either. The need for more holistic views has, in
some marketing frameworks, long been addressed, namely that merits of
business relationships can be better understood if they are examined in
relation to the wider market system in which they reside. This has been
argued by diverse marketing thinkers from various starting-points (see, for
example, Alderson, 1965; Håkansson & Snehota, 1989). There will be
reasons to come back to both Aldersonian functionalism and thoughts on
the Markets-as-Networks approach pioneered by Håkansson and others
later on. While not the subject of particular focus, a surrounding market
system is in this thesis bundled and referred to henceforth usually only as
the local environment, or when necessary “the market system” in order to
distinguish it from the wider community context.

Holism, interdependency between components in a system, and inter-
connectedness between different nested system levels are significant tenets
in the “Systems thinking” account introduced in the business study domain
by Katz and Kahn (1966), and to the organizational sociology domain by
Buckley (1967), and later further popularized in the business study domain
by, for example, Senge (1990). In the wake of the development of general
system approaches in the 1960s (von Bertalanffy, 1968), a number of man-
agement and marketing scholars have advocated systems thinking and
systemic-holistic models where individual managers (or firms) are treated
as not fully in charge of the outcomes (see, for example, Forrester, 1971,
1980; Huemer, Håkansson, & Prenkert, 2009; Layton, 2008). However,
systems thinking has often been considered “alternative” to the main-
stream marketing literature dominated by more linear and reductionistic
research endeavors. Most recently, Wilkinson and Young (2013, in press),
makes a strong argument for why marketing as an academic domain
should “break out” from linear and reductionistic approaches towards the
use of a systems thinking stance in the study of the dynamics of adaptive systems in order to embrace the interaction between environmental influence and internal agency.

Drawing on these arguments, I will advocate that systems thinking is a suitable stance to take if one intends to focus on the transmutations of business relationships and the mechanisms driving these. The tenets of systems thinking emphasize that systems are composites of sub-systems, but are not reducible merely to the sum of their parts, and, hence, the fate of the whole affects the parts and vice-versa (Campbell, 1974). Other tenets of a systems thinking approach incorporate, for example, interdependent elements, input-to-output processes, feedback loops, and equifinal outcomes (Katz & Kahn, 1966; von Bertalanffy, 1968).

In the chapters that follow, I will examine the idea of business relationships as the focal open and adaptive system of analysis. As these inter-firm arrangements under scrutiny are assumed to interact with the local environment to feed back energy and matter to itself, it calls for treating business relationships as not only systems, but as open and adaptive systems – systems that are interconnected to larger systems, and systems that transmute in the course of time. If we treat “sound” or “adapted” business relationships as an outcome of 1) the aspirations and actions of interdependent partnering firms (cf. Scott & Davis, 2007), and 2) the relative success of business relationships in feeding back energy to themselves from the interactions with the wider market system, we must, hence, logically accept that the business relationship as we can observe it at a particular point in time is itself a temporal state in an open-ended process of evolution. Accordingly, it can be claimed that business relationships, with particular manifested forms and features, are only temporal states in an ongoing process mediated by the local environment. Thus, to understand how business relationships evolve, Breslin’s (2008, 2011) calls for more process-oriented and “evolutionary” views should be highlighted. This thesis seeks to discuss how questions about the evolution of business relationships might be answered if we apply systems thinking paired with an alternative explanatory paradigm, namely Darwinism.

Before addressing the theoretical starting points further, the major impact of how the situation in the environment can affect the evolution of the business relationship becomes easier to grasp if illustrated with a historical case adopted from Essay IV in this volume. Before 1999, there was a long era of stability and equilibrium-like states in the way recorded music were provided, distributed and sold to listeners in the Swedish market. Arvids-
son (2007) identifies strong institutional pressures in the 1980s and 1990s to solidify and maintain the distribution of labor between various specialist firms in this market. Most of the incumbent music firms involved in various tasks from manufacturing to retailing were well-aligned to that predominant solution. The music sector had found what the insiders thought were a near optimal market solution to balancing tasks and power and to keeping each actor in the value chain satisfied.

The established business modes had over decades been fine-tuned via small and gradual adaptations that then serve to preserve strongly constrained states. The accustomed, or taken-for-granted system, controlled the parties’ relative distribution of labor. A record company had certain given tasks to take care of, and music distributors had other tasks they were specialists in. Together they complemented each other, ensuring some dependency symmetry, and, hence, stability and durability in their business relationships. This exogenous pressure on the business relationships along the channel from manufacturer to record shops punished radical ideas outside-the-box, and selectively preserved the forms and characteristics of business relationships in the music market. During this era, some entries and exits took place, but new relationships mostly reproduced the prevailing forms. Then, in 1999, with the introduction of Napster (the first influential online peer-to-peer file-sharing service), the traditionally dominant market system for distribution of recorded music was challenged. Essay IV will argue that this shift was made possible by a combination of contextual conditions. This shock undermined the solidified sets of axioms that organized manufacturers, distributors and retailers into historically functional business relationships.

Peer-to-peer file sharing services turned the business relationship logic upside-down by providing an alternative and conflicting proposition for how to organize distribution, sales and relations in the music industry. This entry infused a challenging variation on the traditional ideas, based on physical products, and indisputably, it affected the distribution of dependencies in the business relationships. While character features such as, for example, accuracy in CD pressing or efficient road carriers were to be measured on the scale of the new fully-fledged internetized alternative (music-as-service instead of music-as-product), the gates opened for new players and new unorthodox business relationship constellations. Within a few years after the introduction of Napster, many once stable business relationships between, for example, record companies and distributors of physical goods were either erased, substantially reorganized or had become less
important for the parties. If we accept until further notice that business relationships are at risk if any party involved feels that the costs of involvement exceed the benefits, it should be unproblematic to claim that dramatic change dynamics at the market level might have winnowed out some business relationship arrangements, while at the same time creating opportunities for the emergence of new ones to economize on the new market structure. The music market evolution is a prime recent example, but not the only example where contextual flux and phenomena beyond the firms’ control have affected the conditions for, and forms and characteristics of, business relationships. Over the past several decades, many other markets have also gone through considerable transmutation in terms of density, sizes, forms, and boundaries (Ruef, 2000). An additional example of how new opportunities in the environment radically influence the logic of doing business is, for example, provided by Andersén (2007) who studied the introduction of the computer-aided design software in tool manufacturing.

**The Darwinian challenge**

What does the evolution of the music market tell us? Illustrated by both the slow and stable era prior to the 1999 launch of Napster, and the dramatic recasting of the music market in the post-1999 era, the contextual change dynamics exert an important influence on the rise and fall of business relationships, at least to some extent. It is at odds with the unidirectional idea that managers can control the destiny of business relationships, but tells us that we also must include the local market system and environment conditions in the analysis. To include the larger market system in the analysis is common, for example, in the Markets-as-Networks tradition (see, for example, Huemer et al., 2009; Håkansson & Ford, 2002). Thus, as noted already, I make no claims that contextual-oriented approaches are new in marketing. Nevertheless, to the requirement profile for an evolutionary theory of business relationships it must be added that the theory should be able to address change (or lack of change) in correspondence with the evolution of the larger market system. In other words, the theory to be explored must be able to tackle the fact that two open systems (the market as a whole and the business relationship embedded in it), while at different levels in a system hierarchy, are interconnected.

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3 More about the transitions in the music industry is found in Essay IV

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Initially, a firm’s ambitions to acclimatize and economize on business relationships in changing market conditions directed my research interest to the issues of business relationship transmutations. The more I have read and researched, the more convinced I have become, for the reasons noted above, that we cannot leave the environmental dynamics aside while trying to explain how relationships transmute. There may exist various way of tackle that desire for more contextual approaches. My way is to draw heavily and explicitly on systems thinking, where interconnected and nested system levels are a central tenet. As systems thinking assumes that systems interact and influence one another within a larger whole (Katz & Kahn, 1966; von Bertalanffy, 1968), I address it as a relevant basis to start from. However, in its general form as I use it, systems thinking is no explanatory theory with an inherent logic to explain how a system develops or changes. Such an explanatory logic that might be suitable to complement a systems thinking view for the case of business relationship is a generalization of Charles Darwin’s original mode of explaining the transmutation of open, complex systems (species in Darwin’s research).

It is not pure academic opportunism that leads to this research interest in evolutionary processes in business relationships. The subject is of justifiable theoretical importance, because the creation of new alternative solutions and the winnowing process affecting unfit business relationships and relationship components, respectively, connects logically to the mechanisms of variation creation and selective preservation as it has been captured in Darwinian models (Stoelhorst, 2008b). Nonetheless, circumstances that give a firm favorable opportunities in a particular situation of entering a relationship, and elements and mechanism for success and decay of the business relationship per se are of managerial concern too, as – which some of the strategic management literature stresses – advantageous relationships provide operational benefits to the parties (Lavie, 2006).

Aiming to explain how business relationships evolve, capturing the transmutations and the nature of the outcome from multi-level interaction is supposedly a major challenge for theory construction. Conceptualizing the internal change in business relationships, and the subsequent preservation of relationships that are perceived as favorable, as an evolutionary process, enables the use of a Generalized Darwinian framework. An elaboration and generalization of Darwin’s original idea has in various fields

4 A generalization of the Darwinian framework means that the principles and elements are fully detached from biology and all other empirical domains of application. More about how Darwinism can be abstracted will come in later chapters.
been reported to be especially well-suited to capturing the feedback loop (variation creation and feedback from the environment) that is essential to explain why open, complex systems become adapted to environmental conditions (see, for example, Aldrich, 1999; Dennett, 1995; Richerson & Boyd, 2005). It has in other areas of the social sciences been advocated that a coherent framework based on Darwinian explanatory logic is particularly well-suited to supporting explanations of the emergence of increasingly complex systems, and modified varieties of such entities both in the natural and social realm (Campbell, 1987; Hodgson & Knudsen, 2010a).

In this thesis, the alternative of a “Darwinian systems thinking” view is, therefore, what should be explored and applied to business relationships. For several reasons I consider systems thinking and the Generalized Darwinism to be a composite of complementary tenets. On its own, the version of systems thinking reported is not a standalone theory with its own explanatory power. Darwinism, by contrast, is known to be “an explanatory paradigm” (see, for example, Mayr, 1982), whose advocates point out that it “entails a commitment to systems thinking” (Stoelhorst, 2008b, p. 356).

Darwinism is to date a rather unusual mode of explanation to apply to empirical phenomena in the marketing field, with only a few endeavors that explicitly claim to have used it. A venture that, well-deserved, has been heavily criticized is to try to expand the use of details from biology directly to socio-economic phenomena (Penrose, 1952). Only in very generic terms are, for example, species and business relationships similar, where for example biological characteristics such as mortality, generations, mutations and replications do not apply to the latter. Convincing evidence exists that a direct translation of theories from biology to the social sciences is not fruitful if the exercise too narrowly follows the biological model (argued by, for example, Buenstorf, 2006; Cordes, 2006; Nelson, 2007; Witt, 2004; Vromen, 2006). What is more, a number of leading Darwinists in the socio-economic domain (Aldrich et al., 2008; Hodgson, 2002; Hodgson & Knudsen, 2006, 2010a; Stoelhorst, 2005) believe that a direct translation leads us astray. Hence, this undesirable path is illustrated in Figure 1 by the blocked horizontal arrow at the bottom of the figure. However, it would be premature to assume that the Darwinian mode of explanation in its generic form is irrelevant for use outside biology. Instead, a growing body of literature argues that Darwinism could be ex-

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5 For a literature review of three prime examples see Essay I.
panded from biology, its hitherto dominant domain of application, and be
de-contextualized. This endeavor is illustrated in Figure 1 by the arrow
from biology to a generalized level, tagged “First endeavor”.

![Figure 1: Generalized Darwinism, biology and business studies](image)

*Figure 1: Generalized Darwinism, biology and business studies*

An illustration of the liaisons between the generic theory level of Darwinism (uppermost part of the figure) and two domains of application (lower part of the figure) – biology and business studies, respectively.

Most efforts in establishing a Darwinian explanatory paradigm in the field of social science are devoted to this first endeavor – to debate how Darwinian tenets, mechanisms and concepts could and should be generalized and decoupled from biology for future applications of this generalization of Darwinism to fit management, economics and even marketing phenomena (Hodgson, 2002, 2005; Hodgson & Knudsen, 2006; Murmann *et al.*, 2003; Stoelhorst, 2008b). Later in the thesis, in Chapter Three, I recapitulate the achievements and state of the art of this first endeavor. The advances that have been made are, in this thesis, then used as a starting point to discuss an application on business relationships, tagged “Second endeavor” in Figure 1.

So far, not only in marketing, but also in other areas of business and management studies, few examples of applications of the generalized Darwinian framework on particular phenomena exist. In contrast to the num-
ber of works aimed at abstracting Darwin’s ideas to a general level, to date a paucity of works have been devoted to elaborating Darwinian applications from the general to the specific in the business study domain. Yet, two recent prime examples from the broader field of business studies could be presented: Lewis and Steinmo (2012), who discuss how an application of generalized Darwinism may vitalize the debate on how institutional change is explained in new institutional organization science, and Stoelhorst’s (2010) post in the knowledge-based-view-of-the-firm debate on how learning processes inform the evolution of the firm.

In sum, limited responses from mainstream literatures on inquiries into the origin and evolution of business relationships (due to other prime focuses), theoretical curiosity and similarities (on an abstract level) between evolution in nature and the evolution of business relationships, in combination, determine that this thesis takes a Darwinian stance in order to explore, discuss and elaborate concepts and theorizing that might capture the process of business relationship transmutation. To do this, Stoelhorst’s (2008b) testimony that Darwinism requires systems thinking is taken seriously, and explored. To take systems thinking seriously means that its tenets determine how the unit of analysis – business relationships – is conceptualized and informs the conclusions that can be drawn.

**Purpose and research questions**

In the opening sections, I have argued that research in business relationships has yet to produce a process-oriented theory that takes the emergence, transmutation and durability of the business relationship into more explicit consideration. While the importance and usefulness of business relationships have attracted much interest in recent decades, the theoretical and methodological approaches and concepts used to study their very nature have mostly been designed to uncover correlations between (isolated) variables, often assuming a closed system, or to classify and describe taxonomies, rather than explain transmutations and dynamic processes over time. There are exceptions, which I will return to in the next chapter. In essence, I follow previous works that have addressed that it is difficult to explain change dynamics over time if one takes a reductionistic starting point in the search for unidirectional causality between isolated dependent and independent variables, bases underlying assumptions on agents’ full rationality and/or market equilibria, or neglect the importance of contextual flux and interconnectedness between the unit of analysis and an environment that might change at some periods (see, for example, Hodgson,
2004b). On these grounds, I thus feel that it is time to test an alternative explanatory logic – a logic that conforms to the anti-reductionist tenets of systems thinking – namely Darwinism in its generalized, non-biological, form.

While Generalized Darwinism is being increasingly advocated in other academic fields, while still a relatively novel approach to use in the marketing realm, I consider it interesting to explore to what extent and how a Darwinian systems thinking view offers a fruitful way to conceptualize business relationships, and the evolutions of these. I acknowledge that other potential approaches exist that also embrace more contextual, holistic and multi-directional explanations. Some of these approaches will be recognized when necessary, but my prime focus here is to explore this novel approach on its own merits. A fully-fledge comparison with alternative views is beyond the scope of this thesis. Hence, only in exceptional cases will I compare its assumptions and modes of explanation to those of other explanatory paradigms. My stance is rather that different views are often complementary, and when it comes to explaining evolutionary processes, Darwinism have been nominated as of great potential in other areas (Hodgson & Knudsen, 2010a; Stoelhorst, 2008a). The prime intention is to conceptualize and theorize the phenomenon of the evolution of a business relationship based on the Generalized Darwinian framework. That endeavor, I stress, by necessity involves systems thinking.

This thesis is not an endeavor of biological imperialism or a direct translation from biology. The use of Darwinian concepts is, in this thesis, not used metaphorically, but rather I assert that business relationships literally transmute in ways that to some broader extent have similarities with evolution in the natural realm. Instead of drawing on biological models, I draw on the growing literature of Generalized Darwinism that bases its generalizations on Darwin’s original idea on “ontological similarity” between all evolutionary processes (Hodgson, 2002; Hodgson & Knudsen, 2006). From a generalized Darwinist’s starting point, all open, adaptive and complex systems (in nature and social realms) are subject to evolutionary mechanisms, although the details may differ substantially (Beinhocker, 2006; Hodgson & Knudsen, 2006).

Accentuating change dynamics and not ignoring interconnection with the immediate environment in which the business relationships are situated, the purpose of the thesis is to explore how systems thinking paired with the explanatory logic of Generalized Darwinism offers an alternative in order to deal with difficulties in conceptualizing the nature of business
relationships and in explaining how business relationships arise and transmute. To contribute to a Darwinian explanation of how business relationships evolve embedded in a larger whole, I explain why I believe it is an important starting point to understand business relationships as open, complex systems. Understanding business relationships as evolving “Darwinian systems” accentuates the need for systems thinking, and elaborates a treatment of business relationship transmutation as an evolutionary process intertwined in the evolution of the larger market system. This thesis explores the following two research questions:

1. In what way does systems thinking paired with Generalized Darwinism offers an alternative for dealing with conceptualizing the nature of business relationships?

2. In what way does systems thinking paired with Generalized Darwinism offers an alternative for dealing with theorizing and researching how business relationships arise and transmute?

While the first question deals with the nature of business relationships, or how these inter-firm arrangements can be characterized, the second and related question deals with the origin and transmutation of them – in other words, the evolution of the business relationships. To clarify, this thesis will in this way contribute to the re-specification project (tagged “Second endeavor” in Figure 1). To evaluate or develop Generalized Darwinism per se is thus outside the scope of the thesis, and I will instead explore a possible application of what the generalization endeavor has achieved. Questions may also be raised as to whether systems thinking or Darwinism has priority as the “main theory” in this thesis. I believe the matter to be wrongly formulated. Darwinism requires systems thinking, while systems thinking has been defined as a view of ontological nature and an approach to problem solving rather than an explanatory theory on its own merits. This is at least true to the general form of systems thinking and system theory formulated by, for example, von Bertalanffy (1968, 1972) and Campbell (1974). A more general objective I have with this thesis is to spur

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6 Given the achievements of the “First endeavor” (see Figure 1), it is in this thesis assumed that the possibilities emerge of applying that generalized Darwinian explanatory paradigm outside biology to all Darwinian systems. In Chapter Two, I will return to why it is reasonable to conceptualize a business relationship as a Darwinian system.
the debate within the business relationship research about alternative explanatory models. The intended readership is rather colleagues in the business study communities than Darwinists and systems theorists.

**Outline of the extended summary**

This extended summary draws on findings in four essays. The precise content of the essays varies, but converging themes can nevertheless be highlighted. What these essays share is a view of the sound business relationships as distinguished by mutual benefits for its partnering firms. Also, the essays share a view that in order to persist the business relationships must be sufficiently aligned with the contextual conditions of a wider market system. In other words, versions of systems thinking are present in all four essays, although not explicitly so all the time. All the essays aim to shed light on aspects or mechanisms informing the evolution of business relationships; endeavors that do not take the emergence and durability of such arrangements for granted. Whether it is about the advent of new business relationships (Essay II), the link between transmutations in the drivers to interactions and relationship durability (Essay III), or the conformity of business relationships to contextual flux (Essay IV), a converging theme is to provide answers to questions about how internal assets and contextual conditions, and combinations thereof, inform the evolution of business relationships, questions which are previously left unanswered or ignored – at least to some extent – in research into business relationships in the marketing and strategic management literature. To do so, and to bring uniformity in conceptualization and logic, a second converging theme is proposed – the Darwinian approach.

The discussion and theoretical elaboration in this extended summary draws on propositions and arguments derived from the four essays that, together with this extended summary, complete this thesis. Treating business relationships as evolving Darwinian systems demonstrates the importance of configurational fit and the meaning of a logical distinction between the manifest features of the relationships (such as expressed interactions and governance) and the underlying capabilities and routines of the relationships that facilitate and constraint the former. In this thesis, works and models from the literature on industrial change (for example, Murmann & Frenken, 2006) are reinterpreted to fit the Darwinian framework. Configuration models are discussed – and used – to bridge and position various traditions in the broader field of business relationship studies. By understanding a business relationship as a Darwinian system and linking
Darwinian systems thinking to configuration ideas, the thesis derives implications for a future research programme, as well as for how evolving business relationships are understood.

The remainder of this part of the thesis – the extended summary – is organized as follows. In the second chapter, I return to where this chapter started and in more depth introduce some research fronts on business relationship phenomena. Thereafter, I review some debates and assumptions concerning the nature and evolution of business relationships. I argue there that the demarcation between various traditions in contemporary research on business relationships reflects theoretical and methodological difficulties in conceptualizing the nature of business relationships and how business relationships evolve. Lastly, in light of the literature review, I conceptualize business relationships as Darwinian systems and present arguments as to why this is a proper conceptualization in order to understand what they are and how they arise and transmute.

The thesis proceeds in Chapter Three with a presentation of the explanatory paradigm of Generalized Darwinism that is increasingly addressed and discussed in philosophy of science, and in management, organizational science, economy and related literatures.

Chapter Four, presents firstly brief synopses of each of the four essays, and then incorporates what should be logically equivalent to the analysis/discussion part in deductive-empirical dissertations. These sections are where findings and propositions from the essays are abstracted, re-analyzed and related to each other in order to function as support and illustrations for positions addressed. The middle part of the chapter is prepared through a set of systems-thinking tenets. The final sections of Chapter Four then discuss how – being true to a careful integration of the Darwinian axioms and systems thinking – nature and evolution of business relationships might logically be conceptualized. The very last section of Chapter Four is about methodological concerns, for example how the Qualitative Comparison Analysis (QCA) research method (Fiss, 2007, 2009a; Ragin, 2000, 2005; Rihoux & Ragin, 2009), that I propose is aligned with the foundational systems thinking thoughts, could be used for empirical studies.

Finally, in Chapter Five the contributions and a future Darwinian research agenda are presented. The extended summary ends with final words

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7 In short, QCA is a hybrid of qualitative and quantitative data analysis for cross-case comparison that makes use of Boolean algebra to analyze how different combinations of conditions are aligned with a certain outcome.
discussing the limitations and the scope conditions of an emergent Darwinian system approach in the domain of business relationship studies.

In order to refine and focus the content of the extended summary on this particular theme from beginning to end, the intention while writing was to avoid digressions from the main theme. Hence, detailed methodological issues concerning the empirical studies (e.g. data collection and comments on the analysis model) are included in Appendix B.


2. Review of Business relationship research

In the opening pages of this chapter, I introduce the concept of a business relationship, and present some of the central themes in respect of contemporary business relationship research. I then argue that a business relationship can be understood and re-conceptualized as a Darwinian system, and clarify why systems thinking is an applicable starting point for comprehending the compound mechanisms involved in the dynamics encompassing business relationships.

Defining business relationship

The previous chapter clarified that this thesis is about the “nature”, which relates here to the composition of forms and characteristics, and “evolution”, which relates to origin and transmutation, of the inter-organizational entities we may refer to as “business relationships”. But what do we mean by business relationships? In short, the very definition of a business relationship does not seem to be the subject of much debate. It thus seems unproblematical to define a business relationship simply as a relationship between partnering organizations who do business together. However, which aspects and features of business relationships manifest the conceptualization of, and define the limits and structure of, a business relationship have, in contrast, been subject to much more debate, as various theoretical starting points, literatures and research objectives make researchers focus their interest on an assortment of aspects that can all represent a business relationship. At least since the 1960s, the subject of relationships across firm’s boundaries, relationships “business to business”, has been prevalent in several academic fields, and under different labels (for early attempts, see, for example, Even, 1965; Macaulay, 1963). There nowadays exist vast literatures on business relationships, inter-organizational relations and business-to-business arrangements in leading journals dealing with marketing, economics, law, sociology, organizational studies, and management to name a few. Across these literatures, researchers have been keen to label, categorize and conceptualize these interesting entities. This has resulted in a range of almost synonymous terms; business relationships, marketing relationships, exchange relationships, inter-organizational relations or business-to-business relationships, to name some of them. I believe that “business relationship” is one of the most
common\textsuperscript{8}, at least in marketing literature, and the term that I use in this thesis for dyadic collaborations between firms.

As noted above, research on business relationships, both in marketing and in related domains, deals with interactions between organizations. However, in this dissertation I am only interested in those dyadic interorganizational arrangements that are between those economic organizations that could be classified as business firms. It must be noted too, that the empirical studies and illustrations included in this thesis only embrace those business relationships that are situated inside those marketing supersystems that could be classified as market channels. An inter-channel business relationship can, for example, mean the relationship between a manufacturer and a distributor, or between a distributor and a retailer, and so on. Even though I only empirically examine relationships down the market channel chain, I have not found any reason to believe that the conceptual framework and systems thinking would only be applicable to a particular type of business relationships.

**Introduction to previous business relationship research**

The literature of business relationships is, as has already been shown, extensive and replete with an assortment of starting points and objectives. This outline below covers endeavors primarily in marketing literature, but to some extent also in business-to-business strategy literature. The use of similarities in research objectives in order to define demarcation lines in the assorted business relationship literatures is adapted from Gedeon, Fearne, & Poole (2009), who list three broad elementary areas of business relationship research:

First, one area of research, identified in Table 1 as the “Feature-oriented” genre, endeavors to explore and sort the characteristics of business relationships. A typical purpose would, for example, be to classify or organize typologies of typical business relationships from discrete transactions to vertically integrated strategic alliances (for an overview, see, for

\textsuperscript{8} I carried out a search on publications listed by Google Scholar (March 15, 2013). “Business relationships” is used in 63,700 publications, “exchange relationships” in 31,700, “marketing relationships” in 7,010, “business-to-business relationships” in 4,870, and “interorganizational relationships” in 14,000. Those who wish to be more specific also use terms such as “customer-supplier relationships” (used in 17,700 publications), “buyer-supplier relationships” (12,200) or “buyer-seller relationships” (19,900), etc. Rounding up is done by the search engine itself.
Table 1: Genres of business relationship research

<table>
<thead>
<tr>
<th>Focus</th>
<th>The &quot;Feature-oriented&quot; genre</th>
<th>The &quot;Key-to-success&quot; genre</th>
<th>The &quot;Managerial&quot; genre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>Characteristics of business relationships</td>
<td>Performance-markers of business relationships</td>
<td>Firm's benefits from business relationships</td>
</tr>
<tr>
<td>Typical objectives</td>
<td>Investigate (and classify) characteristics of business relationships in various situations, developmental stages or product markets</td>
<td>Explore adequate and required preconditions (or variables) underlying stable, efficient and/or durable business relationships</td>
<td>Track impact of business relationships on firm performance, for example how business relationships can be made more productive or easier to control from a firm perspective in order to produce more benefits to the central firm</td>
</tr>
<tr>
<td>Theorizing</td>
<td>Mostly positive insofar it describes, explains and predicts what actually is often from a non-managerial perspective</td>
<td>Primary positive but with explicit or implicit normative (what should be) implications for firm managers</td>
<td>Often normative based on positive claims: normative insofar as it offers guidelines for managerial action</td>
</tr>
<tr>
<td>Focus on environment</td>
<td>Yes and no. For example the Market-as-Networks tradition offers context-specific &quot;thick&quot; cases, while some other sub-branches ignore reference to contextual features.</td>
<td>Mostly unidimensional generalized claims with scant reference to context-specific features (exceptions exist where contextual phenomena are the explanatory variables)</td>
<td>Mostly unidimensional generalized claims with scant reference to context-specific features</td>
</tr>
<tr>
<td>Focus on evolution</td>
<td>Low. Mostly snapshot analysis of existing business relationships</td>
<td>Low. Mostly snapshot analysis of existing business relationships</td>
<td>Low. Mostly snapshot analysis of existing business relationships</td>
</tr>
<tr>
<td></td>
<td>Not primary focus on dynamism and change processes (with the exception of stage models)</td>
<td>Not primary focus on dynamism and change processes</td>
<td>Not primary focus on dynamism and change processes</td>
</tr>
</tbody>
</table>
example, Morgan & Hunt, 1994). Such typologies are often due to the observable level of intensity/frequency in the exchanges/interactions and characteristics of procedures by which partnering firms relate and conduct; e.g. communication style, governance, degree of involvement, joint planning, and so on. Also legal bonds, operational linkages and degree of organizational adaptations might be used to document and sort the characteristics of different types of business relationships (Cannon & Perreault Jr, 1999). Related objectives in this genre are, for example, to describe how operational and contractual ties between partnering firms are constituted, or how partners exchange information and collaborate (see for more examples, e.g., Ellram & Hendrich, 1995; Fontenot & Wilson, 1997; Iacobucci & Hibbard, 1999; Wilson, 1995).

To this genre could also be added the life-cycle works (Dwyer, Schurr, & Oh, 1987; Ford, 1980; Larson, 1992) that report features typical of each developmental stage of business relationships. A common denominator for works in this genre is the shared aim of describing and characterizing features of various business relationship typologies. Likewise, it seems rather unproblematical to say that the Markets-as-Networks approach – in the tradition of the Industrial Marketing and Purchasing group – also to some extent accommodated in this genre, even though this tradition often publishes in different outlets compared to many of the above-listed authors. While producing often profound and deep individual case studies or large-scale empirical studies of what comes about between firms embedded in market systems, and how firms interact, from the perspective of viewing the structure of enterprising as a network of multiple relationships between interdependent firms (Håkansson, 1982; Håkansson & Snehota, 1989, 1995), the Markets-as-Network approach largely gives primacy to characterizing the manifested attributes and observed characters of the business relationships that accommodates the interaction between firms (Brennan, 2006).

A second broadly defined tradition, which in Table 1 is tagged as the “Key-to-success” genre, is devoted to addressing the prerequisites, or keys, to successful business relationships. In other words, research in this area explores the adequate and required preconditions or variables underlying stable, efficient and/or durable relationships. Research in this genre also highlights, for example, the correlation between various characteristics and the success of a relationship, and markers which identify pitfalls. It is, for example, common to address how (one or multiple) explanatory variable(s), such as resource control, idiosyncratic investments, trust or depen-
dency, is related to (one or multiple) dependent variable(s), such as relationship commitment, trust, conduct or intensity in exchange, in order to examine, for example, what distinguishes productive business relationships, shared long-term orientation, or how partners can handle conflicts to create a sound relationship nature (see, for example, Anderson & Coughlan, 1987; Anderson & Weitz, 1992; Ganesan, 1994; Heide & John, 1992; Kumar, Scheer, & Steenkamp, 1995; Lai, Pai, Yang, & Lin, 2009; Lusch & Brown, 1996; Mohr, Fisher, & Nevin, 1999; Palmatier et al., 2006; Walter, Muller, Helfert, & Ritter, 2003). Reviewing this literature, Palmatier et al. (2007) suggest four dimensions of variables that dominate this category: Commitment and trust, dependence distribution, effects from relational norms, and level of relation-specific investments and opportunism. Scholars in this genre have, for example, invoked variants of Social Exchange Theory (Blau, 1964; Thibaut & Kelley, 1959, concerning power and dependency) and/or Transaction Cost Analysis (Williamson, 1975; 1983, concerning unilateralism, transaction-specific investments, and efficiency) to interpret results and make propositions for managerial actions. Outside the domain of marketing, key-to-success questions on how control, trust, dependency, conduct and power distribution in relationships are related to each other and other variables have also been addressed by resource dependency theories (Pfeffer & Salancik, 1978).

A third broad category in business relationship research is, in Table 1, identified as the “Managerial” genre. It primarily focuses on how firms can benefit from relationships, and how to make them more productive and more controllable from a firm’s perspective, without risking the loss of net beneficial relationships, for the aim of in return acquiring more benefits from the arrangements. This category of research concentrates on a firm’s performance, i.e. the firm’s benefits from involvement in business relationships. In both marketing (Bello, Chelariu, & Zhang, 2003; Whipple, Frankel, & Daugherty, 2002) and part of the strategic management literature (Barringer & Harrison, 2000; Dussauge, Garrette, & Mitchell, 2000; Dyer, 1996; Dyer & Singh, 1998; Dyer et al., 2008; Jarillo, 1988; Lavie, 2006), there has been an increased interest in the importance of value creation and benefit-seeking through business relationships. There has also been a focus on how to absorb skills from partnering firms while at the same time avoiding leakage of one’s own desirable assets and skills (Lane & Lubatkin, 1998; Lavie, 2006). However, while focusing on benefits for the single firm, the nature or evolution of the business relationship itself is not the main focus, but rather what the firm’s get in return for involving
themselves in relationships. In somewhat oversimplified terms, the motivation in the managerial tradition is mostly to comprehend the role of cooperative business relationship arrangements within the strategy of the firm. Studies on inter-firm benefit-generation have contributed with new insights and extend this literature. There has, in particular, been an extension to the classic resource-based view (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984) in order to incorporate how co-generated benefits are generated and distributed, resource integration, relational capabilities, and shared routines and resources; but the relational view has likely also broadened the conception of business entities beyond the firm.

This chapter proceeds as follows. The next two sections highlight in some detail first how origin and transmutation is (largely not) theorized in previous research, and then why it is important to bring environmental influence into the analysis. There is thereafter a comparative analysis in which the mostly feature-oriented Markets-as-Networks approach and the mostly managerial-oriented resource-centric approaches are contrasted in order to illustrate how fundamentally different business relationships can be conceptualized.

**Origin and evolution in previous research**

The notion that modern firms do have relationships with other firms have become so widely accepted that nowadays business relationship theories in marketing and strategic management often take it for granted that firms first have to create and then sometimes have to struggle to keep business relationships, as not all business relationships last. A number of studies on alliances and partnerships reveal that more than every other business relationship entered decay shortly after conception (Harrigan, 1985; Kale, Dyer, & Singh, 2002; Kogut, 1989). As suggested, inter-firm collaborations and access to complementary assets are a necessity for today’s firms to thrive. Firms everywhere are seeking partners, learning from partners, and exploring pooled assets and partners’ access to market channels and customers. While this takes place, firms are accumulating new ideas, new skills and so on from other ties and from the local environment (see Essay III). The above-cited literatures contribute with both in-depth cases and broad statistical research on characteristics, to classify business relationships and to understand how relationships are organized, why they might be unbalanced, and their benefits. But mainstream studies are often based on snapshots (frequently from surveys), i.e. responses to “how it is”, and few take a longitudinal and process-oriented view of the rise, change and
fall of business relationships, i.e. responses to “how it came to this”. Thus, for researchers interested in the process of how a set of business relationships have arisen and transmuted into what they are today, few works are found to satisfy their curiosity, at least if we want to explain how evolution takes place and do not only want to investigate the consequences of change.

Nevertheless, across the three broadly categorized research areas introduced above there are some attempts to examine the different development stages of relationships (at least in the “feature-oriented” and “key-to-success” branches). The prime examples are often based on the simple relationship life-cycle model (Dwyer et al., 1987; Ford, 1980; Heffernan, 2004). However, this model has received much criticism because it predetermines a sequence of fixed stages from initiation to closure, and for lacking references to how environmental conditions affect how relationships grow or change (Abosag & Lee, 2012; Halinen, 1997; Rao & Perry, 2002; Stanton, 2002). Instead of claiming that relationships are predetermined to evolve in a particular direction, these critics propose that intensity in interactions, composition of features and level of produced benefits in a relationship can change back and forth an infinite number of times as well as being in a steady state for long periods.

In order to avoid the problematical issue of evolution, scholars in more recent times have limited their scope to matters relating to a specific stage of development. This stream of research has for example concentrated on how and when relationships are maintained (Fletcher & Harris, 2012), and why relationships sometimes deteriorate, or how weakened relationships may be subject to imminent ends (see, for example, Hocutt, 1998; Pressey & Mathews, 2003; Tahtinen & Halinen, 2002). These latter works link some characteristics of the business relationships (e.g. poor employee relations, poor economic returns, or mismatched business culture) to relationship closure. Corresponding research into what stabilizes or destabilizes relationships has also been ongoing for quite some time in strategic management (Das & Teng, 2000). However, the initiation stage, when and how, and under what circumstances, two potential partners decide to enter a relationship, is a less well-researched topic according to Wilkinson, Young and Freytag (2005), who state that few studies have focused on how and under what circumstances firms have success in “business mating”. Nevertheless, the issue of business mating, which opens the door to the advent of new relationships, is arguably as important as understanding the maintenance or decay; especially as recent prime studies
in areas outside the marketing domain have addressed the idea that being
good and effective at creating relational ties with other firms is key to high
performance (Hallen & Eisenhardt, 2012).

Moreover, in light of evolutionary economic theory (Nelson & Winter,
1982), Brennan claims that the Markets-as-Networks approach that he
represents is in need of a “coherent, endogenous theory of change within
inter-organizational relationships” (Brennan, 2006, p. 836), meaning that
the tradition hitherto has been mostly focused on understanding and ex-
plaining features or interactions at a time or in an event, but has not paid
sufficient attention to historical events and longer time series in order to
develop an evolutionary theory with explanatory power. However, as
Brennan points out, the Markets-as-Networks approach embraces the as-
sumptions of open systems, cumulative learning and path dependency. He
thus concludes that there is common ancestry and scope for cross-
fertilization between evolutionary theories and the Markets-as-Network
approach. While it is seemingly important to establish a conceptual and
theoretical basis for future empirical research on the dynamics of business
relationships, following Brennan (2006) the Markets-as-Networks ap-
proach seems to be a good candidate for informing the conceptualization
of business relationships.

I must, however, acknowledge that processes of business relationship
advent, renewal and decay have been addressed before. There is for, ex-
ample, a rich Scandinavian tradition of case studies on business relationships,
where, for example, the advent and dynamics of relations is portrayed as a
means (but not as the prime aim) of studying e.g. how interactions inform
value-creation and/or how trust and commitment is generated within rela-
tionships (see, for example, work by my colleague in this university,
Gunnarsson, 2011). Stories of growth and the dynamics of business rela-
tionships are also evident as by-products in some descriptions of industrial
change (see, for example, Arvidsson, 2007; Djelic & Ainamo, 1999;
Wikström, 2006). However, from my point of view, there is a difference
between documenting change dynamics in business relationships while
focusing on other prime issues (e.g value creation), as most of the above-
mentioned works have done, and giving primacy to the attempt to address
the challenge outlined by, for example, Brennan – to contribute to the
project of making evolution of business relationship logically explainable.

In essence, neither the classic life-cycle model (Ford, 1980) nor other
prime works in genres listed above offers a coherent explanation of how
the business relationships in state t-1 is transmuted into a different compo-
sition in state $t$. In order to formulate a Darwinian theory of business relationships, both the conception of new relationships and these transmutations needs to be explained – rather than inquiring what are typical characteristics in each of the predetermined development stages.

**Bringing in the environment**

What does it take to explain the evolution of business relationships? As I have written in the introduction and touched upon earlier in this chapter, I am afraid that adopting a process-oriented perspective is not enough if we really want to be able to move towards explaining the evolutionary molding of business relationships rather than only documenting change. Drawing on the criticism of the life-cycle approach, I believe process-orientation must be combined with a more contextual approach – meaning to treat and relate evolution and the performance of the business relationship in the light of the nature and evolution of the wider market system it belongs to.

As noted, both in marketing and in recourse-centric parts of the strategy literature it seems as if environment or context is largely missing, as influential managerial perspectives have had an increased influence on business relationship research. The “Managerial” branch sketched above (about how benefits are generated and distributed) is largely influenced by a resource-based view (Barney, 1991), the comparative advantage theory (Hunt & Morgan, 1995), branches of strategic choice thinking (Child, 1972), and other schools that all propose variants of an argument that firms themselves shape and choose, and thereby create their own success or failure. In contrast, in both marketing (Alderson, 1957, 1965), and organizational studies (Hannan & Freeman, 1977; Woodward, 1965) records of functionalism and contingency thinking proposes in one way or another that the condition of the environment in which the unit of analysis is embedded to some extent informs the destiny and characteristic of organizational arrangements.

Let me recall the music market illustration from the opening chapter. These often rather short eras of high flux in a market, which are often outside the control of the individual firm, are frequently related in literature on technological change and organizational innovations inspired by ecology to changing external conditions, e.g. a technological breakthrough or new legislation. For example, Ruef (2000) shows that many other markets have also gone through considerable transmutation in terms of density, sizes, forms, and boundaries over the past several decades. Still, even if the radical disruptions of market level preferences, as in the music market
example, are widely publicized in media and in science, it should be acknowledged that slow gradual change (or no change) in organization and market structure and maintenance within existing frames might be more common in terms of the length of the eras (Gersick, 1991; Romanelli & Tushman, 1994; Tushman & Romanelli, 1985). The great leaps of paradigm shifts in markets are rarer. This means that the set of fundamental market standards, type of firms and their roles and positions, compositions of business relationships, commonly accepted structures and practices and procedures that constitute a way of doing business in a particular market are more or less maintained for long periods of time. Although in such eras new firms may also enter the scene, and some business relationship arrangements are replaced and some may even be developed and launched in slightly new versions. Then, suddenly it might seem, dramatic eras as in the music market example are ushered in that profoundly turn solidified axioms upside down to make existing state of the art obsolete, and, thus, pave the way for more radically new or changed business relationship arrangements. Industrial change literature has recorded many empirical examples from throughout history where eras of stability and slow incremental adjustments within existing frames and eras of ferment have taken turns in shaping the corporate “ecosystem” (for an overview see Murmann & Frenken, 2006).

So how does it affect theorization about business relationships? In essence, I believe the notion of contextual flux and technological leaps is one long argument for why a conditional fit between business relationship and its environment matters for the evolution of the business relationship. The idea that market-level and relationship-level arrangement is interconnected is an argument that, for example, is supported throughout the Markets-as-Networks approach. Of particular note, the Markets-as-Networks approach treats business relationships as an integrated and interdependent part of a wider system, arguing that no firm or business relationship is “an island”, meaning that it is sound always to conceptualize these units in relation to the wider market system they inhabit (Håkansson & Snehota, 1989, 1995).

The Markets-as-Networks approach is, however, not alone in challenging assumptions that business relationships can be analyzed as discrete exchange or isolated from the environment. Alderson’s (1957, 1965) theorizing on transactions deserves special notice, even though the label “business relationship” was not used. In the late 1950s Alderson’s transactions and transvectors perspective was introduced (Alderson, 1957). As the
Founding father of functionalism in marketing, Alderson acknowledged that firms have mutual dyadic exchanges (transactions) with external players such as suppliers, buyers, and intermediates. But a transaction was not found in isolation. There was something more, something bigger. And, therefore, he introduced another concept, “transvections”. In Aldersonian terminology, a transvection alludes to the complete marketing procedure by which a product emerges from initial production to final purchase; including communication, bargaining, and refinement and transportation of the product. A transaction, in contrast, may, hence, be seen as a link in that marketing chain, or as a component in a larger system. Alongside buyers and sellers, transactions and transvections (or synonymous labels) are still key organizing units of analysis in modern marketing theory. Aldersonian conceptualization (see also, Alderson, 1965) of transactions focuses mainly on explaining the existence and nature of the transaction by reference to the function it has for the entire market system – i.e. how the exchange and flow between the two parties contributes to an efficient transvection and the overall marketing process. Critics may note that Aldersonian functionalism focuses heavily on competitive (selective) pressures from the environment and less upon how managers launch new organizational innovations. However, as a contrast to the managerial-oriented approaches, Aldersonian functionalism evokes the need for balance.

To summarize, in order to explain the evolution of business relationships, it seems necessary to encompass the relationships and the collaborating firms’ alignment to contextual change. It is important that readers understand that I do not advocate replacing incomplete “managers (or firms) create business relationships”-explanations with an equally incomplete “the environment creates business relationships”-explanation. Instead, I explore a combined approach while trying to organize findings from both extremes upon a common set of concepts and interrelated mechanisms. One such framework is a systems thinking approach loaded with the Darwinian mode of explanations. Still, before being ready to address prerequisites for a coherent Darwinism-based theory in more detail, it is needed to assess and contrast some preexisting conceptualizations of business relationships.

**Different views on the nature of business relationships**

As noted above, explaining the emergence and dynamics of the business relationship itself is secondary to more “taxonomic” and firm performance-centric aims in today’s research landscape. But in order to be more
precise in examining how business relationships transmute we must first understand what constitutes a business relationship, and how various approaches in the literature conceptualize it. Yet there is no consensus in the marketing domain concerning a generic conceptualization of exactly what constitutes a business relationship. To demonstrate fundamentally different focuses, the following is a comparative analysis where the conceptualization of business relationships in “Managerial” studies, with theoretical antecedents in resource-based view, is contrasted with the key assumptions of the Markets-as-Networks tradition as a represent of the “Feature-oriented” genre.

From a managerial perspective based on the resource-based view, the business relationship is important as a source of benefits for the individual firm (Lavie, 2006). A firm’s valuable and competence-edging resources may span firm boundaries as embedded in inter-organizational assets, routines and procedures, and the firm could excel due to beneficial resource integration (Dyer & Singh, 1998). From this perspective, a business relationship can be defined by the shared and, to both parties, accessible repertoire of inputs (e.g. resources, routines and capabilities) that facilitate and restrain the outcome of the relationship, rather than its outputs (e.g. power distribution and opportunism) per se. From the resource-based (and competence-based) view, benefits streaming from, for example, learning (Hamel, 1991) or lower transaction costs could be seen as a result of resource integration across firms’ borders. To contrast with Alderson, who defined a transaction by its functioning, a business relationship is in a resource-based view rather described as a composite of the underlying capabilities, skills and routines, and the physical resources, that facilitates and limits the workings of the relationship (Dyer & Singh, 1998; Dyer et al., 2008; Lavie, 2006).

In contrast, the Markets-as-Networks scholars instead emphasize the manifest multivariate connectors between the firms involved: activity links, resource ties and actor bonds (Håkansson & Johanson, 1992; Håkansson & Snehota, 1995). A business relationship is, from this standpoint, constituted as a set of two firm units, including employees, and the manifest inter-firm connectors. This concentration of manifest characters rather than functions or underlying potentials, is also shared with more mainstream marketing scholars in the “Key-for-success” branch that view a business relationship in terms, for example, of the expressed inter-firm governance, interaction frequency, conflicts and trust between parties (see, for example, Palmatier et al., 2006).
To summarize, although the basic definition of a business relationship is not subject to much debate, it must be acknowledged that there is no general consensus about how the nature of business relationships should be conceptualized. Depending on perspective, and rationales for research, it may make sense to stress various aspects of business relationships both in terms of content and consequences. What part of the firm-centric strategic management approach shares with the very different Aldersonian approach is a view of interfirm links as an explanatory variable that causes an outcome (benefit and function), to the focal firm and the overall market system respectively. Yet, the mechanisms explaining how the business relationships evolve remain unclear. I will next explain why, despite appreciating the contrasted conceptualizations, I instead prefer to classify business relationships as open, adaptive systems – “Darwinian systems”.

Towards an alternative conceptualization

So far in this chapter I have pointed out two interdisciplinary debates in the various literatures on business relationships. The first is about the conceptualization where underlying dimensions (capacity for action; as stored in for example capabilities and routines) is contrasted with observable dimensions (outcomes; as for example governance patterns, expressed trust and legal ties). The second is the classic debate on individual freedom of choice versus situational-institutional contingency. To more explicitly focus on the evolution of business relationships with explanatory ambitions, I believe that a framework is warranted that appears to find common ground in order to bridge both these controversies.

If one thinks about it, there must be, logically, a bi-directional causality (a feedback loop) between an underlying “capacity to act” and manifest outcomes. Without resources and skills there are no actions; and, conversely, if skills and routines are not used, they will fade away. This notion resembles findings in other fields and traditions that routines and resources are (re-)produced and tested in use (Becker & Lazaric, 2009; Becker & Zerpoli, 2008; Vargo & Lusch, 2004). Similarly, neither environmental contingency nor firms’ actions and choices can unidirectionally explain a multi-sequential evolution of business relationships (a claim supported also by, for example, Huemer et al., 2009). Hence, in order to fulfill an evolutionary explanation, the two methodological perspectives must somehow be bridged. The “Continuity thesis” (Witt, 2003, 2004) indeed proposes that a critical feature of all evolutionary explanations is to explain how the
outcome at moment t is related to and path-dependently derived from moment t-1.

The Aldersonian functionalist approach highlights the merit of selective pressure from the outside, forming (in economical terms) efficient arrangements by winnowing out the least effective (through competition). On the other hand, as there is flux in most markets, a rapid change in technologies and pressure to acclimatize, new business relationship arrangements are needed. However, drawing on the resource-based camp, I assume changes must be directed by firms or business relationships based on their (evolved) preferences, habits and skills at hand. The emergence of new arrangements cannot be explained purely by the redirection of exogenous selective forces (as in functionalism). Thus, to have a diversified set of forms and characteristics with which to feed the selective process, a capability for creativity and power of initiative within firms and business relationships ought to exist. Therefore, I believe, resource-centric and learning approaches have merits too in this endeavor to theorize the evolutionary process.

In the previous sections it was argued that, even though scholars in many domains show an interest in business relationships, it is often without further regard to the larger market systems in which business relationships are embedded. Following Breslin’s (2008) call to arms for more process-oriented and contextual approaches, firms, business relationships, and the wider market can be conceptualized as a hierarchy of nested system levels. Outside the wider evolutionary/Darwinian tradition, the hierarchical system view is also supported, for example in marketing, by Prenkert and Hallén (2006).

Some important generic characteristics of a system must be noted. First, a system comprises sub-systems (components) that (directly or indirectly) must be connected. Also, systems nested inside a larger system have distinct borders (von Bertalanffy, 1968). A system constituted of both manifest characteristics and distributed knowledge and assets must be characterized as “open”, as it needs to lay claim to energy and matter, e.g. information, from its immediate environment for maintenance (Scott & Davis, 2007). Moreover, an open system is potentially self-functioning, as it adapts to the wider system in which it is nested. Consequently, I believe it is useful to characterize business relationships not just as systems, but as open systems.

By undertaking systems thinking, it is possible to understand business relationships as an emergent entity “above” the individual parties. Such an open system with multiple interdependent aspirations and levels will be,
more or less, in a chronic state of flux. Hence, we might think of the collaborating parties and the business relationship itself, respectively, as valiant stewards that struggle to acclimatize and take advantage of new opportunities, for their existence and their prosperity. Furthermore, I characterize any focal system (a business relationship) as interconnected both with its sub-systems (the partnering firms) and a supra-system (the market system); as it transforms itself from within (based on, for example, ongoing resource integration), while at the same time being tested by the environment in which it is embedded. This conceptualization does not exclude but embraces the idea that every business relationship comprises both inputs (e.g. routines and capabilities), and outputs (e.g. governance patterns and interactions). A great deal of evidence has been reported empirically that firms (defined here as sub-systems of business relationships) hold the potential to absorb knowledge and lay claim to energy and support from the outside in order to endure (Cohen & Levinthal, 1990). If business relationships are conceptualized in a similar way, it seems logical to address the evolution of these systems with a similar framework. It requires, logically, that dispositions that direct the characteristics of the business relationship itself must also be specified in order to explain evolution.

Crucially, it must be acknowledged, marketing scholars since Alderson (1965) have drawn on systems thinking ideas. However, to date, to the best of my knowledge, with the possible exception of Eyuboglu and Buja (2007), reviewed in detail in Essay I, few other endeavors has been made explicitly to examine the evolution of business relationship from a system stance using a Darwinian mode of explanation. It is beyond the scope of this thesis to examine whether evolutionary-style attempts have been made in marketing from, for example, a starting point in other theories of an explanatory nature that also tries to balance notions of structure with notions of agency; for example starting points in Critical realism (Archer, 1995) or Structuration theory (Giddens, 1984). Nor is it my objective to compare a Darwinian explanation with, for example, an explanation based on Structuration theory. As I understand it, these different perspectives see different things and are thus complementary. My endeavor here is rather to explore what a Darwinian mode of explanation in tandem with a systems thinking approach may contribute to overcoming the theoretical and methodological problems noted in relation to explaining business relationship evolution.

In sum, the attempts that I have come across in mainstream marketing journals have, however, primarily been focused on how isolated explanato-
ry variable(s) (e.g. bargaining conducts and ability to compromise) inform the relationship formation process (Dabholkar, Johnston, & Cathey, 1994) using the mode of causality “X causes Y”. A majority seem to draw explanatory power and arguments from transaction cost economics (Williamson, 1975) and/or from a managerial point of view (Rosenbloom, 2007; Stern, El-Ansary, & Brown, 1989), and treat the advent (and disclosure) of a business relationship as a matter of manageable choice: a choice between internal production and acquiring from, or outsourcing to, another firm, and relationship formation as an issue of choosing the right partner among a range of potential ones out there. It is unclear how this coupling and evolution works; and, it is unclear what causes these leading scholars to lead managers to believe that other companies are constantly on standby to enter in a relationship at a time when the focal firm needs them. Not all firms can likely be equally successful in attracting and holding on to a partnering firm. Thus, I find a systems thinking approach necessary to emphasize the mutual dependency and interconnectedness of nested systems instead. Varying degrees of success in business mating is further addressed in Essay II.

**Inviting business relationship systems to meet Darwinism**

Systems thinking is not new in the marketing domain, and Alderson’s (1957, 1965) functionalism bears a record of system thoughts. The interpretation of a market as a multi-dimensional marketing system is manifested, for example, in Layton’s (2007) article on macro-marketing systems, and more recently in the pledge for interpreting markets as value creating systems (Vargo & Lusch, 2011). Nonetheless, these systems thinking approaches visible in marketing literature do not advocate a particular explanatory model, and reading, for example, Katz and Kahn (1966) makes me believe that systems thinking per se has no explanatory power unless an explanatory theory/framework is integrated with it, for example, transaction cost analysis, social exchange theory, the Aldersonian version of functionalism, or Darwinism. The explanatory framework we choose varies with the purpose, but it is, I believe, critical that the overarching explanatory paradigm is aligned with the generic tenets of systems thinking, such as the possibilities for equifinality and multifinality, internal distribution of functions, and interconnectedness and interdependency between components and between layers in nested hierarchy (Skyttner, 2006; Wilson, 2001). In addition, as evolving systems have the capacity cumulatively to add new (or/and re-bundle) features from one iteration to the next.
(Bánáthy, 2000), the explanatory theory must, logically, also be committed to the history-needy Continuity thesis (Witt, 2003, 2004) noted above.

The idea of business relationships as open, adaptive and complex systems bears a resemblance to the key analytical units in any Darwinian theory (see, for example, Breslin, 2011; Hodgson, 2002; Stoelhorst, 2005, 2008a). In Darwinism, “open” refers to interdependency with the local environment or supra-system that the focal system inhabits, and with which each Darwinian system needs to exchange material and energy for its maintenance of functional integrity. Secondly, the business relationship is “adaptive” in that the system’s characteristics will change as a result of interaction – e.g. knowledge absorption, migration of people, and etcetera. Thirdly, a business relationship is “complex” in that it consists of multiple elements; i.e. subsystems (firms) and sub-subsystems (individuals) that themselves also interact, absorb energy and adopt (cf. Stoelhorst, 2008b). While on different levels, organizations, and colonies of organizations, markets and even nations and other non-biological systems could be considered to be open, complex and adaptive systems. Contemporary advocates of the generalized version of Darwinism – which will be covered in more detail in the next chapter – believe that Darwinian theories can apply to social and natural systems at multiple levels (Beinhocker, 2011; Godfrey-Smith, 2009; Stoelhorst, 2008b).

Including then the word “population” into the conceptualization of Darwinian systems, Hodgson (2004b) accentuates that a Darwinian understanding of evolution must embrace understanding of the range of competing, similar but not identical varieties, i.e. population thinking (Mayr, 1977, 1982). Population thinking is a notable feature of Darwinism; therefore, commitment to population thinking limits a Darwinian model’s potential to draw definitive conclusions about the evolution of the individual business relationship without paying sufficient attention to the competing alternatives. In the next chapter, I will return to why the Darwinian mechanism of selection is unthinkable except through population thinking.

In contrast to, for example, Aldersonian functionalism that addresses functionality of transvections from an economic and efficiency seeking point of view, a Darwinian approach will accentuate a combination of assessment criteria for selection, including legacy seeking and other situated institutional pressures from the wider system (Hodgson & Knudsen, 2010a). The wider system could in the context of business relationships be, for example, market channels or the value chain, or as in the theory of Alderson (1965) under the concept of the full transvection.
As noted above, the attempt to accentuate a more dynamic and contextual-oriented (holistic) systems thinking approach replenishes a Darwinian research agenda. Yet, in marketing outside the consumer behavior subdiscipline\(^9\) an explicit use of Darwinism or Darwinian mode of explanations is still in its infancy (Eyuboglu & Buja, 2007; Palmer, 2000; Wilkinson \textit{et al.}, 2005), but may benefit from increased interest and progress in other sciences (see, for example, Breslin, 2011; Johansson & Siverbo, 2009).

In the marketing literature, reading Eyuboglu and Buja (2007) as a prime example gives an idea of how insights into the socio-economic conducts and procedures of firms might be used to sketch a Darwinian account of business relationship dynamics. Using Social Exchange Theory (Thibaut & Kelley, 1959) and Darwinism’s functional mode of explaining selection, they theorize that some governance combinations increases the risk of relationship disclosure. However, as addressed in more detail in Essay I, the theory provided by Eyuboglu and Buja (2007) is in sum not much more than a revised application of the selection theory provided by Alchian (1950), and already accepted as orthodoxy in economics. Unlike Eyuboglu and Buja’s (2007) “quasi-Darwinian theory” (the expression is their own), it is a general idea that a fully Darwinian conception of evolution of business relationships must also involve notions of how new variation is infused in a population, and how the outcomes of selection mechanisms are preserved from one iteration to the next (Stoelhorst, 2008b). Besides that, to complete the recursive feedback loop necessary for the explanation to work, a further elaboration of the units being selected and the means that store the outcome of selection is also needed (Sober, 1984). No such complete Darwinian explanation has yet been specified and elaborated for business relationships.

In the next chapter, a generalization of Darwinism is presented and discussed as an over-arching ontological and methodological starting point for the analyses in Chapter Four on how systems thinking paired with the explanatory paradigm of Darwinism can offer a fruitful way to overcome the conceptual and theoretical difficulties described in this chapter.

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\(^9\) Drawing on the genetics of human beings, consumer behavior studies sets out to understand trends and purchasing decisions. However, in this thesis I am interested in the evolution of non-biological entities, business relationships. For an introduction to biology-inspired consumer behavior research see, for example, the article by Saad (2008).
3. The Darwinian explanatory paradigm

In this chapter, I present a generalized and context-neutral version of Darwinism as the overarching ontological and methodological position to study business relationships from. I draw on the generalizations of Darwinian principles increasingly addressed and discussed in the philosophy of science, and in management, organizational science, economy and related fields.¹⁰

Several researchers in other fields within the social sciences have, during the last quarter century or so, been noted for their Darwinian-flavored contributions, for instance in the philosophy of science, management, organizational science and economics (Aldrich, 1999; Dawkins, 1976; Dennett, 1995; Godfrey-Smith, 2009; Hannan & Freeman, 1977; Kelm, 1997; Nelson & Winter, 1982; Ruef, 2000; Sober, 1984). However, much of this work aims to generalize Darwinism and break Darwinism out of biology in order to construct and discuss the paradigmatic outlooks of a Darwinian meta-theoretical framework that is general enough to suit all kinds of evolutionary processes of open, complex systems (Hodgson, 2002). In Chapter One, I was referring to these attempts to generalize as the “First endeavor”; i.e. the efforts to de-contextualize Darwinism from biology to a generalized level. Much of the existing literature on Darwinism in the social sciences is, therefore, abstract, general and rather speculative, and not yet re-specified to any particular new domain. For example, Stoelhorst (2010) addresses the need for a second endeavor, and concludes that domain-specific and empirical work is lagging behind.

This justifiable “Second endeavor” is illustrated in Figure 1 (see Chapter One, page 22) by the arrow from Generalized Darwinism to applications in domains other than biology. The figure also shows the tempting shortcut to import biology directly into business research. However, in Essay I and later on in this chapter I assert that trying to squeeze the empirical findings of business relationships into a framework elaborated for biology is misaligned and potentially misleading. I understand biological analogies in social science to be a dead end. In the previous chapter I outlined that a bet-

¹⁰ Parts of this chapter were originally written for a literature course in Darwinism (“Darwinian evolutionism in contemporary business research”), held at Örebro University School of Business in 2011. The course paper was later majorly revised and rewritten both for this introduction to Generalized Darwinism and for the final version of Essay I. For that reason, parts of this chapter and some middle sections of Essay I overlap.
ter understanding of how business relationships transmute may be facilitated if one instead explores Generalized Darwinism (results of “First endeavor”) as an over-riding explanatory paradigm and starting point for domain-specific theorizing. Starting from what the first endeavor had achieved, the second endeavor involves suggesting how central mechanisms in an emergent evolutionary-Darwinian theory of business relationships might be conceptually warranted.

To comprehend in greater depth the achievements of the first endeavor I believe one can start with the terms “Evolution” and “Darwinism”, respectively. Evolution is sometimes used synonymously with Darwinism. The term, however, derives from Latin *volvere*, “to roll” (Hodgson & Knudsen, 2006), was used for longitudinal processes in various disciplines before Darwin published his *magnum opus* in 1859. While no author can invoke exclusive rights to “Evolution”, Darwinism has a more precise meaning. Being “evolutionary” in the Darwinian sense means a venture to systematically explain how new varieties of business relationships are accumulated and adapted in co-evolution with partnering firms and the environmental system they are situated in (cf. Aldrich et al., 2008). Darwin held that his theory aimed at explaining how processes of selective (non-random) preservation of attributes in a population (together with generation of new variation, which he admitted that he knew nothing about) will form new varieties; and that this process of stepwise adaptation to local environments leads to increased specialization derived from common origins. This is in order for varieties to colonize new niches in order to ease competition and thrive (Darwin, 1859), cf. finding a monopoly-like situation. In short, in order to explore in what ways Darwinian systems thinking offers an alternative to deal with the origin and evolution of business relationships, this thesis draws on a generic Darwinian account of evolution (and not of progression or change in the broadest sense of “Evolution”)\(^1\)

When it comes to offering a set of universal principles of Darwinism across domain borders, this noteworthy “First endeavor” of abstracting the central themes of Darwinism is far from finished. Neither in philosophy of

\(^1\) I am totally aware that Burgelman, Winter, Staw, Van de Ven, Zollo, Alchian, Miner, Pentland and many other scholars for years had used the terms selection, retention, variation and evolution in their theories in order to sketch dynamism. However, as their theories lack the underlying Darwinian meaning of these concepts, and do not use the Darwinian explanans, I see no reason to engage further with these theories on that sole merit of similarity of word choice. Some of these scholars are nevertheless discussed in this thesis, but not on the basis of the words they choose, rather based on the relevance in the contents they provide.
science (Godfrey-Smith, 2009) nor in economics and the business sciences (Hodgson & Knudsen, 2006; Stoelhorst, 2008b), are researchers in complete agreement on how Darwin’s principles should be generalized in order to both retain explanatory power and, at the same time, be sufficiently universal to be applied to all evolutionary processes. The unfinished project comprises in management and related literatures at least two issues. The first issue concerns whether a generalized Darwinism, disconnected from biology, can be abstracted from Darwin’s theory and adequately capture what is general about all evolutionary processes (argued by, for example, Aldrich et al., 2008; Hodgson & Knudsen, 2006; Stoelhorst, 2008b), or whether such cross-border endeavors to find common ground are futile, whether the exercise to apply Darwinism in social science analogously follows the biological model (argued by, for example, Buenstorf, 2006; Cordes, 2006; Nelson, 2007; Witt, 2004). The second issue concerns “how to generalize”.

Let us start with the first important issue. An attentive reader might wonder whether it is the use of Darwinian principles per se that the antagonists are critical of, or the examination of biological theory in social science. Biology in the wake of Darwin’s work has been elaborated with auxiliaries for 150 years where the integration of Mendel’s genetics (i.e. “the biological synthesis” integrated with Darwinian biology in the 1930s and 1940s) and Weissmanism (stating that only information carried in the germ cells can be inherited by the offspring) are prime examples. Darwin (1859) did know that mechanisms of variation and retention somehow must exist in order for his theory to work, but he was unable to give detailed explanations of these mechanisms. No Darwinian trademark can, for this reason, be given to mutations, generations and genes. What is more, more recent proponents of Generalized Darwinism are, seemingly, very well aware that there are large differences between evolutionary mechanisms in the biological and the socio-economic spheres. Contrastingly, generalizing Darwinism means to carve a framework based of central principles and tenets elaborated from the work of Charles Darwin that can apply to any evolving system. It does not mean an attempt at biological imperialism of thoughts.

The defenders of the generalization project – “First endeavor” – have shown how its critics often still conflate Generalized Darwinism with biol-

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12 An attempt at biological imperialism would, for example, be to apply biological theory to phenomena in the business realm; something illustrated as a problematic shortcut in Figure 1.
ogy, while directing their criticism at the use of biology to explain socio- economical or cultural phenomena. Hence, the critics have often failed to distinguish between Darwinism as a generalized meta-theoretic paradigm or framework that always needs auxiliary theories to elaborate detailed explanations, and Bio-Darwinism as a theoretical composite including 150 years of findings that can elaborate full explanations in the biological realm (Hodgson & Knudsen, 2006). On the contrary, all prime advocates accentuate that Generalized Darwinism is warranted but is never enough (Aldrich et al., 2008; Stoelhorst, 2008a). Moreover, no advocate contradicts the criticism expressed by Nelson (2007, p. 91), who claims that the “structures and mechanisms that are involved in the evolution of human culture need to be identified and studied in their own right.” Both sides in this debate are apparently in perfect agreement with this statement. Thus, much of what is meant as a criticism apparently misses its target: it is a criticism of squeezing biology and Bio-Darwinian models into business studies, but less of a serious criticism of the underlying commitments and universal principles of the broad meta-theoretic Darwinian framework. For example, both Stoelhorst (2008a, b) and Hodgson (2004b, 2007; Hodgson & Knudsen, 2006) had shown that Darwinian models work even though when intentional actions and human agency are included in the analysis.

Despite acknowledging that some ambiguity remains, Stoelhorst (2008b, c), Beinhocker (2006) and Hodgson and Knudsen (2010a) have not just said that it can be possible to generalize Darwinism, but have also presented versions of how this might be achieved. Until further notice, I therefore accept that it is possible, and to a degree already achieved, but obviously not tested empirically, as Generalized Darwinism is generally seen as a paradigm or broad framework, and not a theory in the same sense as any domain-specific theory or model.

The remainder of this chapter is devoted with the “how to generalize” issue. What follows is, therefore, what I perceive that the “first endeavor” has accomplished. I have in this summary tried to balance the differences between various scholars. What is presented here, therefore, is what I believe is common ground of understanding amongst Generalized Darwinists. The generalization of Darwinism concerns discussing *explananda* (what it explains) and *explanans* (how it explains) based on some shared commitments across all evolutionary processes in both nature and the social-economic realm. However, I must here remind the reader that the premise for applying the Darwinian mode of explanation is that the unit of analysis
meets the requirements of a system denoted as open, adaptive and complex (Hodgson, 2002; Stoelhorst, 2005) presented in the previous chapter.

Before Darwinism’s generic *explananda* and *explanans* is addressed, some shared underlying commitments of ontological origin that are fundamental to Darwinism are suggested (cf. Hodgson, 2004b; Klaes, 2004). These are adapted from the widely accepted Continuity thesis, defined and defended by Witt (2003, 2004), Hodgson’s (2002) notion of ontological similarity (that evolution for all qualified systems shares some universal features), and the theory of interdependent multi-level selection (Maynard Smith & Szathmary, 1997; Sober & Wilson, 1998):

1. All open, complex systems transmute in the course of time (cf. species are not fixed, Darwin, 1859).

2. This change is somehow caused. Although this commitment to causal explanations does not postulate predictability or regularity, there is a commitment to a search for causal explanations.

3. The Continuity thesis suggests that an evolutionary explanation must explain how the outcome at time t is derived from the state of things at time t-1. The consequence of this principle is a commitment to explaining how today’s systems are – path-dependently – molded from earlier developmental stages (Stoelhorst, 2008a, b). In other words, the outcome from one iteration or sequence is the input into the next. However, this commitment does not exclude the possibility for the introduction of new variation and new levels of complexity (emergence). It is rather assumed that complex outcomes are the result of accumulation over time (Stoelhorst, 2008b, c).

4. Evolutionary transmutations take place at multiple interrelated levels, which postulate a need for a “layered ontology” (Dopfer & Potts, 2004), a term that refers to a commitment to treat the whole of reality as, in essence, one large system where everything is interrelated, but with adjacent interconnected levels. The assumption that interrelated processes of evolution go on at multiple levels makes, for reasons I will return to, systems thinking sufficient and needed. Please remember that a systems thinking approach requires that the focal unit be analyzed not in isolation but rather as part of a nested system where sets of competing propositions are tested.
Darwinism’s *explananda* and *explanans*

Darwinism generically has the following *explananda*: to explain i) variety from common origins, ii) adaptive fit, and iii) accumulation of complexity (Dennett, 1995; Maynard Smith, 1993; Mayr, 2001). The first *explanandum* relates to Darwin’s notion that specialized varieties had descended from more general common ancestors, and was commonly accepted in the community of natural researchers shortly after publication. Darwin’s second contribution is the uncovering of a generic causal logic that could explain how a system through an “algorithmic” problem-solving procedure becomes more adapted to the environment, and how this cumulatively leads to accumulation of complexity (Dennett, 1995; Stoelhorst, 2008b), i.e. solutions customized for each environment, and/or higher system levels. Adaptive fit in particular is considered to be the key *explanandum* (Maynard Smith, 1993), while accumulation of complexity and customization of specialist systems from the more generalist systems are seen as products of adaptive fit in order to profiting on fitness advantages and avoid direct competition (Stoelhorst, 2008b). What a Darwinian explanation involves could be a subject for substantial publications. In essence, central to explaining adaptive fit is the trinity of variation, selection and retention, whose functions have been generalized something like this (Campbell, 1965; Dennett, 1995; Stoelhorst, 2008b):

- **Variation**: A variation-creating mechanism enhances the variety in the repertoire of design and acting instructions and thereby enhances the variety of manifested characteristics (i.e. variation).

- **Selection**: The way open, complex systems interact with their local environment results in a narrower variety of characteristics (at least partly as a function of fitness and the success of manifested characteristics, and not merely randomly).

- **Retention**: Characteristics privileged by selection are preserved, which requires some form of memory constituent.

While mating and the conception of new generations fulfill both the variation-creating mechanism and the retention of instructions for instincts and body structures in biology, nothing a priori says that these two logically distinct mechanisms have to be united. In strict generic terms, the reten-
tion/preservation mechanism has only one job; to store information over time in order to maintain variety (Stoelhorst, 2008b).

What is more, to comply with the logic of functional explanations (Elster, 1983), the Darwinian explanation also has to separate “unit of selection of” (i.e. the “phenotype” or a system’s manifested characteristics) from “unit of selection for” (i.e. the “genotype” or a system’s memory constituent where the instructions for actions and features are stored) in order to establish a positive connection between the ability to make acts beneficial for a system and the probability of repeating those actions in the future (Sober, 1984). The selection mechanism punishes unfavorable acts/features, and, hence, not only randomly preserves instructions allowing the system to perform the approved acts. Hereby, the selection mechanism changes the composition of instructions being stored to direct future interactions (Stoelhorst, 2008b), leading towards adaptive fit. Putting it differently; systems (phenotypes) that are the least successful in interaction with the environment have a smaller chance of securing subsistence, and, therefore the sets of instructions that directing these least beneficial actions and features gradually will become less frequent in a population of comparable systems (Hodgson & Knudsen, 2004). In sum, the trinity of variation, selection and retention plus the genotype-phenotype duality is what constitutes the Darwinian explanans.

Furthermore, in order to explain the accumulation of higher complexity from simpler forms (third explanandum), multi-level selection logic is required in the explanations (Maynard Smith & Szathmary, 1997). Higher system levels can emerge when, and only when, mutualism (symbiosis), for example through improved complementary allocation of resources instead of hostile competition, appears to provide benefits for the parties. That happens when cooperation instead of direct competition helps each party to be more beneficial in their struggle for existence (Stoelhorst, 2008c).

A note on the causal logic of functional explanations

Hodgson (2004b, p. 97) argues that “even if every step in a process cannot be determined in detail, the algorithmic process helps to provide an explanation”, where algorithmic refers to the nature of the variation-selection-retention trinity. As the second commitment of Darwinism postulates, evolution is a stepwise, continuing, and causal accumulation (but not neces-

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13 The memory that stores adaptive actions and features has been given different names. The term “codex” has been proposed (Wilkins, 2001; Williams, 1992; Stoelhorst, 2008b). However, I usually prefer to quite generally write “genotype”.
sary succeeding in small gradual steps) of adaptive complexity, but due to complexity and multiple interdependencies the mechanistic explanations “given A, B arises” and “A causes B” are disabled. Instead of using such unidirectional mechanistic explanations, Darwinism uses a functionalist mode of explanation\textsuperscript{14}. This mode of explanation works if and only if it is possible to specify a causal feedback loop that reconnects the advantage of having a character feature (B below) with an increased likelihood of proliferation and survival (Elster, 1983). That is possible with the Darwinian algorithm, where selection is this required feedback loop, making the functional explanation complete. Accordingly, a rigorous functional explanation works like this (Elster, 1983; Stoelhorst, 2008a):

1. Result A is a consequence of character feature B;
2. A is beneficial for system C;
3. A maintains B by a feedback loop going through C.

Both the functional explanation itself (as a whole) and the first condition of it are causal but recursive. Critics have argued that accounting for phenomena by screening what needs they please does not explain how they originated or why it is what it is (Kucklick, 1996). While acknowledging this criticism, it can be countered by the complementary processes of retention and variation. The causal logic of selection in Darwinism has been stressed to restore the causal logic “by specifying how variation in a population of entities is reduced so that those variations that work best in the system’s local environment are retained” (Stoelhorst, 2008a, p. 419). What Stoelhorst addresses is that selection without variation and retention is not a full explanation of adaptive fit. In order to replenish variation in a population of competing entities, a variation-creating mechanism is essential, and in order to store the favored characteristics and transfer them to the next iteration, the preservation mechanism must be specified.

**A needed framework in need of auxiliary theories**

To sum up, portrayed as “the single best idea that anyone has ever had” (Dennett, 1995, p. 21), Charles Darwin’s theory has, according to its advocates, unique explanatory importance in explaining variety from common origins, adaptive fit, and accumulation of complexity (Stoelhorst, 2008b).

\textsuperscript{14} It is called functional explanation since it begins from the result, i.e. the function, and not from the cause.
When it comes to these *explananda*, Stoelhorst argues that no other explanatory paradigm is as complete. These claims of uniqueness are often backed by a reason stating that the Darwinian *explanans* can offer an answer to the questions about change dynamics of complex population systems that unidirectional cause-and-effect perspectives have left unsolved (Aldrich *et al.*, 2008; Dennett, 1995; Mayr, 2001). The uniqueness of the Darwinian *explanans* is, according to Godfrey-Smith (1999), that it establishes a coherent causal relation between a dynamic population of competing entities and their dynamic local environments. Hodgson (2004b) also emphasizes the interconnectedness between evolution at multiple levels, and the fact that Darwinism can explain the evolution of systems at different levels. Its explanatory power has been viable beyond question in the biology sphere, where it forms the basis of the predominant explanation for the origin and evolution of species.

I can agree with, for example Hodgson & Knudsen (2010a), that the Darwinian explanatory paradigm also has the potential to make contributions to the social sciences. This potential can, however, only be exploited if it can first be generalized to an abstract generalist level detached from biology or any other science (“First endeavor”) without losing significant explanatory power, and then carefully specified for use in a particular domain (“Second endeavor”). It is not until the second endeavor has conceptualized a tenable story that we can properly evaluate its explanatory power in our field. The generalized Darwinian framework alone does not have any particularly implications without content-specific auxiliary theories, and Generalized Darwinism *per se* should not be regarded as a detailed account of any particular Darwinian system. I believe the right way to think about the proposed generalized Darwinian framework is instead to think of a “paradigm” or “meta-theory” that forms the basis for any content-specific Darwinian-evolutionary theory. Thus, in order to work out a theory that explains how business relationships transmute theoretical specification for business relationships, this broad framework must be filled with relevant domain-specific rigor and empirical findings. It is concluded in Essay I that seemingly a great deal of work remains to be done before empirical research can reach a final decision on the fruitfulness of Darwinism in business relationship studies.
4. Business relationships as Darwinian systems

This chapter reports an exploration of how conceptual, theoretical and methodological difficulties in explaining the nature and evolution of business relationships can be tackled from the stance of a Darwinian system approach. This exploration is done on the basis of systems thinking and the generalized principles of a Darwinian explanation outlined in the previous chapter. Extracted and re-analyzed results and propositions from Essay I-IV are used to feed into this discussion.

Main results from essays

The thesis includes four autonomous essays, and here follows a synopsis of them, summarizing their scope and results. Essay I is co-written with Tobias Johansson, Essay II is co-written with Gabriel Linton, and Essay III is co-written with Jim Andersén, while Essay IV is my own product. In Table 2 on the next page the essays of the thesis are presented. As can be read from the table, each essay is intended to respond to a distinct research question. However, in all, the four essays, I-IV, respectively, are about aspects and mechanisms informing the nature and evolution of business relationships, and – more or less explicitly – tackle the effort from a generalized Darwinian frame of reference. Being true to the first Darwinian commitment (see Chapter Three, page 51) that every Darwinian system has evolved and still evolves, a Darwinian endeavor to explain business relationships cannot take the emergence and durability of such interfirm arrangements for granted.

As Table 2 shows, the first essay outlines a generalized Darwinian framework and addresses how this framework can elaborate our understanding for how business relationships transmute. The second essay takes a configurational approach to the advent of new business relationships, while finding equifinal solutions for startup firms to achieve mating with incumbent middlemen/distribution partners. The third essay elaborates on the link between transmutations in the drivers to the collaborating partners’ conduct and relationship durability, while proposing that asymmetric motivation and asymmetric manifestation of knowledge absorption from partners is a dangerous threat to relationship durability. Finally, the last essay tackles the need for more contextual approaches in business relationships research, while addressing the idea that the evolution of business relationships within a channel setting is to some extent informed by contextual flux and change in the overall market channel systems. At least, findings from the examination of the Swedish music market’s evolution
<table>
<thead>
<tr>
<th>Essay</th>
<th>Title</th>
<th>Research question</th>
<th>Design</th>
<th>Main results</th>
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</thead>
</table>
| I     | On the promise and premises of a Darwinian theory in research on business relationships | How is the foundation of a more explicit Darwinian framework for research on business relationships possibly formulated? | Conceptual paper / Literature review                | 1. A full Darwinian explanation must include variation, selection and retention. One or two of them is not enough.  
2. A Darwinian explanation of business relationship evolution must be mediated from Generalized (decontextualized) Darwinism rather than translated directly from biology as accounts of evolution in biology is simply a misfit with the business study domain.  
3. *Routines* in business relationships function as dispositions that enable and limit the entities holding them, and retain important adaptive information from time \( t \) to time \( t+1 \). |
| II    | Business mating: When start-ups get it right                         | What configurations positively influence the advent of intra-channel business relationships? | Multi-case study with Qualitative Comparison Analysis (QCA) | 1. For startup firms, equifinal solutions are found, leading to major opportunities to form new business relationships.  
2. "Entrepreneurial" dispositions (e.g. risk-taking and proactiveness) are found to be beneficial only in certain market situations.  
3. Indeed, no single asset or contextual environment is necessary or sufficient alone to explain the emergence of new relationships. Rather it is the aligned combination that appears important. |
| III   | Asymmetrically realized absorptive capacity and relationship durability | How can dispositions of collaborating partners be conceptualized and linked to manifest actions and to the durability of relationships? | Conceptual paper / Literature review                | 1. The level of realized absorptive capacity can differ significantly from the level of potential absorptive capacity.  
2. The more cognitive attention that is paid to the relationship, the more the potential absorptive capacity will be realized.  
3. In the course of time, asymmetrically realized absorptive capacities are likely to alter the dependencies between partner(s) and the conduct of the partners.  
4. In the course of time, asymmetrically realized absorptive capacities are likely to put a former operating relationship at risk. |
| IV    | Evolving market channels in the Swedish music industry: A Dominant design approach | How can the evolution of market channel designs be conceived using a dominant design model? | Qualitative research paper                          | 1. The former dominant design of the Swedish music industry's market channels is challenged and dismantled, but not yet replaced by a new dominant design.  
2. An inter-channel business relationship is dependent, and to some extent, controlled by the fate of the entire market channel system it inhabits.  
3. Dominant design thinking can be expanded to frame a Darwinian explanation of the evolution of other open, complex systems (e.g. market channel systems). |
demonstrate conformity of business relationships within a channel setting to contextual flux.

The discussion in Chapter Three reveals that applying biology to business relationship contexts is a dead end. Hence, rather than continuing down the path of squeezing biology theory and analogies of such into the theorizing on business relationships in marketing literature, Essay I suggests how the generalized Darwinian framework can be supported with auxiliary marketing-relevant theoretical rigor by the use of existing warranted marketing and management concepts. Moreover, the idea that investigations into the evolution of business relationships should account not only for the mechanism of selection but also for the mechanisms of variation and retention in order to take proper account of the Darwinian-evolutionary process is proposed as a significant contribution and implication in Essay I. If Darwinism is to be taken seriously in marketing, and is to advance our understanding of the evolution of business relationships, I and my colleague Tobias Johansson, who has co-authored the first essay, believe that a combination of Generalized Darwinism (framework) and relevant auxiliary theories (specified content) is the way forward. Penrose’s (1952) criticism of the use of biology analogies and attempts to make empirical phenomena in economics fit the constraints of biology might still be relevant. Her criticism was of the heuristic value of evolutionary biology for socio-economic research, but was not a criticism of the generalized Darwinian explanans (which had not yet been formulated when Penrose formulated her criticism).

Wilkinson (2006) argues that business relationship research needs an empirically derived theory of business mating. In response, in Essay II two configurations are presented that support the advent of a business relationship between a startup firm in the manufacturing/invention position of the market channel and an incumbent firm in the middlemen/distribution position of the market channel. Possessing the assets of either an entrepreneurially oriented executive manager or a radical product idea supports mating chances in turbulent and non-solidified markets that lack a dominant product design. However, entrepreneurially oriented executives and radical inventions seem to be negative for mating odds in stable markets where a dominant product design has already been established. These findings contribute to the study of business mating within the domain of business relationship research, and from an evolutionary point of view, it contributes to the overall objectives of the thesis in the following ways:
First, the results of Essay II show that in order to form business relationships startup firms must find a good fit between internal assets and contextual circumstances. The importance of investigated conditions (management style, radicalness of invention, and external market situation) cannot be ranked, and there are in evolutionary terms no good or bad “selection for”-instructions to possess, but rather it is about matching assets and procedures with the market systems’ demands. When the outer system is in a particular state, it is beneficial to possess some assets and procedures in order to mate, and ultimately to survive, while in a different surrounding opposite character features may be beneficial. Moreover, in response to “Managerial” approaches in mainstream business relationship literature that suggest “picking the right partner”, this second essay has found that it should not be taken for granted that firms, in particular startups, have the opportunity to choose among possible partners of their liking. Rather, startup firms should focus on matching internal capabilities and assets to external conditions in order to become attractive to marketing partners, or otherwise they always run the risk of being left alone without any collaborating middlemen at all. Indeed, no single asset or contextual environment is necessary or sufficient alone to explain the emergence of new relationships; rather it is the aligned combinations that are important to create in order to achieve success in forming business relationships. This is an important contribution to a small but growing debate on the effects of entrepreneurial orientation (Andersén, 2010), as the results from the business mating study cannot support the allegations that entrepreneurial orientation is a necessity for enabling startup firms to form business relationships.

Second, the conclusion of the second essay bridges micro (firm) and macro (market) perspectives and accentuates multi-leveled compliance, and the importance of fit. The evidence from Essay II supports the argument that it is not possible to discuss “fitness” or “valuable invention” without investigating combinatory and co-evolving effects of both market-side and firm-side attributes. The important finding is that the firm’s assets and procedures (in the business mating study manifested by the management’s entrepreneurial orientation and radicalness of the proposed invention) only helps its owner to a business relationship if the invention is timely and attractive to another firm, attractive, that is, in terms of providing fitness benefits – in other words, cooperation helps each collaborating partner in firm-level competition against rival firms in the same market and sector niche. The elaboration of a multi-level system, including firms, relationships, the market and the wider society (e.g. technology, norms and fa-
shion), is intimately related to the foundation of the generalized Darwinian framework.

Essay III illustrates how a motivated partner who gives more attention to a business relationship is likely to absorb more knowledge from its partner than their less motivated counterpart absorbs from the former. Over time, that can threaten the durability of a relationship. Thus, executives need to be able to understand the possible long-term consequences of their partner’s conduct in order to avoid losses of joint strategic resources and relational benefits. Another key contribution of this article is the redefinition of the concepts of potential and realized absorptive capacity. In contrast to the definitions by Zahra and George (2002), where it is unclear whether absorptive capacity is a firm’s potential capacity to acquire, assimilate, transform, and exploit external knowledge, or the actual use of that potential, i.e. the performed acquisition, assimilation, transformation and exploitation, or both, our re-definition underpins the difference between the potential (i.e. disposed) and the realized (i.e. performed) features. This re-conceptualizing of absorptive capacity fits and contributes to a Darwinian research agenda, making a distinction between the instructions that direct features and actions and the features and actions per se. It is argued that the degree of realization of absorptive capacity is influenced by the cognitive attention directed to the relationship. Thus, the relative degree of cognitive attention (which influences the degree of realized absorptive capacity) can help explain the partners’ forms of conduct and consequently the durability of business relationships.

In Chapter Two, I claimed based on a literature review that part of the business relationship research field frequently seems to underestimate the importance of environmental conditions. In Essay IV, it is observed that business relationships nested as components in a larger market system (a channel system) co-evolve with the market system. The concentration on market system design and market system transmutation responds to Chapter Two’s pledge of more contextual approaches in order to understand and explain the dynamics of business relationships. The main theoretical contribution of Essay IV is that dominant design modeling (adopted from industrial change theory, Murmann & Frenken, 2006) can be expanded to frame a Darwinian explanation of the evolution of other open, complex adaptive systems (e.g. market channel systems); as such, dominant design models are shown to comply with the Darwinian tenets, and, for reasons I will come to, are allied with systems thinking. Using a dominant design model, Essay IV integrates a warranted auxiliary theory to fill the gener-
lized Darwinian framework with relevant domain-specific business study findings. On its own merits, the case in Essay IV of a dramatic transformation and evolutionary story has empirical contributions. There are relatively few observations and longitudinal industry level cases depicted outside manufacturing. The evolution of the music industry’s market channels is by comparison little explored. One lesson from this transmutation process that can be learned is that, when new windows of opportunity open up and new threats appear, the preconceptions of each firm’s mission and role based on its position in previously dominant market systems can hinder traditional insiders from acclimatizing to the new market system(s).

**Systems thinking, Darwinism and business relationships**

In his “the Fifth Discipline”, Senge (1990, p. 68) wrote that systems thinking “is a discipline for seeing wholes”, “a framework for seeing interrelationships rather than things” and is “for seeing patterns of change rather than static snapshots”. Applying this systemic stance to business relationship studies, we will likely arrive at strikingly different conclusions concerning the relations between conditions and system components if we take into account the interactions and interconnectedness between nested systems and between parts within each system (compared to traditional unilaterally causal thinking). Being treated as a perspective rather than a theory, systems thinking incorporates several tenets of ontological and methodological nature. I structure this section based on nine key tenets and discuss for each one of them how it relates to, and informs, Darwinian theorizing, and how it conditions the conceptualization of business relationships as Darwinian systems. Table 3 provides a list of the nine tenets. Observations and propositions made in the essays in the thesis are used to illustrate how Darwinism and systems thinking can deal with the theoretical and methodological difficulties in conceptualizing and researching how business relationships arise and transmute. A summary comparison of systems thinking, Generalized Darwinism – as described in the previous chapter – and examples of implications for the theorizing of business relationship are presented in Table 3.

**Differentiation and interdependency**

One fundamental tenet of systems thinking postulates that differentiation and complementariness exist within a system (Katz & Kahn, 1966), meaning, in essence, that each subsystem performs specialized functions
<table>
<thead>
<tr>
<th>Systems thinking tenet</th>
<th>Meaning</th>
<th>Generalized Darwinism</th>
<th>Example of implication for business relationships as Darwinian systems</th>
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</thead>
<tbody>
<tr>
<td>Differentiation</td>
<td>Each system component performs specialized functions critical for the overall system to work.</td>
<td>Evolutionary processes tend to result in increased differentiation from more universal originals: as a means to manage competition and the increased complexity of the environmental system.</td>
<td>Advent of new BRs must be explained by the cooperative advantages the new BR has for both parties competitiveness (e.g. Essay II).</td>
</tr>
<tr>
<td>Interdependency</td>
<td>A system is constituted by interdependent system components.</td>
<td>Supposes bidirectional influences and multi-dependencies—denies independent elements.</td>
<td>Bidirectional streams of benefits and dependency are critical for the formation of business relationships (Essay II); BRs are stable only as long as both partnering firms perceive themselves to be dependent on their business partner (Essay III).</td>
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<tr>
<td>System hierarchy</td>
<td>Units of analysis are nested in a hierarchy of interconnected nested system levels: i.e. complex wholes are made up of smaller subsystems.</td>
<td>Darwinian systems are to some degree constrained by and dependent upon their subsystems while they to some degree are constrained by the overall system. A Darwinian analysis must carefully define the level of analysis and the proper unit of analysis. While a system can be the focal in one study, it can be defined as a subsystem or a characteristic of the focal system of analysis in another study.</td>
<td>BRs as a meso-level in a firm-relationship-market hierarchy of nested systems (Essay I) where competition takes place on multiple levels: While BRs compete with other BRs, parties compete among themselves for power and shares of benefits. A solidified market system can, for example, determine and constrain a limited set of possible positions for BRs to enter in its architecture. However, new varieties with outstanding competitive edge can “upwardly” challenge and change an entire market (Essay IV).</td>
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<tr>
<td>Emergent properties</td>
<td>A system has emergent properties that cannot be reduced to assets of particular subsystems (an anti-reductionist position).</td>
<td>Evolutionary processes are always ongoing at multiple nested system levels (multi-level evolution). Each system level above the biological levels introduces a new level of analysis that has its own emergent properties.</td>
<td>A business relationship is a solution to give firms competitive edge that contains emergent properties. These are, for example, norms, values, manifested patterns and actions that cannot be traced to a specific party in the relationship, but rather are co-created and stored on the relational level. For example, a BR is informed by relational routines (Essay I) and manifests a governance pattern of interdependency, trust and norms (Essay III) that cannot be understood if we only study the parts.</td>
</tr>
<tr>
<td>Goal-direction</td>
<td>Each system, despite position in the system hierarchy, is goal-directed and growth-oriented towards local optimization.</td>
<td>Darwinian systems strive for survival and growth, but are usually kept back by competition from variants that compete for the same energy and matter. Aspirations at higher system level operates selectivity “downwards”.</td>
<td>To be consistent, it must assumes that BRs like firms and spices have an urge to strive. Persistent BR’s set of instructions (e.g. routines) must be assumed to contain some instructions which protect the system from being winnowed out (Essay I).</td>
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<tr>
<td>Feedback loop</td>
<td>A way to feed back responses from system operations is needed to regulate the system. The Darwinian trinity of variation, selection and retention completes the feedback loop necessary for a functional explanation to work by connecting the usefulness of features to systems’ chance to get energy and matter. The creation of new variation in a population feeds the selection mechanism, while the retention mechanisms (system’s memory) transmits selected characteristics to the next iteration. Although we can assume that two competing BR constitutions both aspire for persistence and growth, the overall selection pressure provides non-random feedback on their attempts. After profound contextual flux, although, it is possible that selection rewards differently than before (see, e.g., Essay IV). New variation to a set of BRs can have many sources, both internal and external, both conscious and random (Essay I).</td>
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<tr>
<td>Input-to-output processes</td>
<td>Stimulus from the outside are sensed and responded by the system based on its input characteristics in the current iteration. The input characteristics of a Darwinian system equal the output characteristics of the previous round of variation, selection and retention. These inputs direct how the system sense and response to environmental stimuli and how the system commandeer energy and matter from the outside. Generalized Darwinism makes the distinction between genotype and phenotype central in its explanans. Adhere to the genotype-phenotype distinction, the nature of BRs needs to be conceptualized in two dimensions: Manifested interactions, artifacts and governance patterns of BRs is constrained by the genotypical inputs of the BRs (Essay I). As the outcome (manifested characteristics) of BR to some degree is constrained by the parts (firms), differences between partners in performed absorption of external knowledge might change distribution of knowledges and destabilize the BR. Inputs such as absorptive capacity and attention/motivation at firm-level inform the absorption of information (Essay III).</td>
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<tr>
<td>Equifinality</td>
<td>Same/similar outcome can be achieved despite different initial system components and conditions via different paths. Outcomes such as survival (or to manifest a particular behavior) can be achieved by Darwinian systems despite different genotypical repertoire. Radically different configurations can both lead to the sought outcome; e.g. formation of a relationship (Essay II).</td>
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<tr>
<td>Multifinality</td>
<td>The same initial system components and conditions can result in different outcomes. In addition to adaptive fit, variety from common origin and acculation of complexity are Darwinian explananda. From one dominant BR configuration, the interplay of new innovations and change in the environment provides the seedbed for alternative BR configurations (Essay IV).</td>
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Business Relationship in abbreviated BR
critical for the system to work. This relates to the work by Talcott Parsons (1937) on functional subsystems in societies. Differentiation can also refer to processes of evolving increased diversification and specialization. An example could be the workings in natural eco-systems where, for example, trees, larvae, small birds and raptors in order to avoid direct competition have developed different roles—in specific niches—where each of them is critical for the whole system to work properly. In the socio-economic realm, Essay II shows that, under environmental social and economic pressure, a business relationship with a complementary partner might provide sufficient help for a firm to secure scarce resources to carry on. The two parties of a business relationship economize on division of labor at the cost of coordinating specialist tasks; the commonly accepted modern implication of division of labor, originating from William Petty in the 17th century, and advanced by, for example, Adam Smith and others, is that it makes possible specialization and increases in efficiency. From Essay II can be extracted that the advent of business relationships must be explained by the cooperative advantages such resource integration has for the competitiveness of both parties in direct competition with varieties of their own kind of firm. For example, it was found in Essay II that in situations where most middlemen firms were already tied to particular dominant technology and solutions, it was very difficult if not impossible for inventors of competing radically new inventions to form business relationships—maybe since few middlemen perceived that a technology shift would give them competitive edge. In the music market study, it was said that distribution of working tasks were gradually becoming more fine-tuned in the pre-Napster era, where each subsystem—record companies, distribution firms, and retailers—was specialized in their own field (Essay IV).

A second tenet of systems thinking is bi- or multidirectional interdependency between components in a system. Following general system thoughts, sovereign substances can on no account represent a system (von Bertalanffy, 1968, 1972), as “everything is connected to everything else” (Sterman, 2000, p. 4). The standpoint that a business relationship is constituted from multiple autonomous but interdependent subsystems and emergent properties is highlighted by all four essays. A business relationship is, for the components (firms), a commitment (resource locking) to one particular partner at the expense of energy and matter that could otherwise be spent elsewhere. Essay I stresses how the genotypical instructions of a business relationship, such as relational routines, are recursively interdependent with the actions taken in the relationship, its governance patterns
and its produced artifacts. Similarly, as noted above, Essay II and Essay III also highlight the importance of bi-directional streams of benefits and the dependency for attracting a partner (Essay II) and for keeping the relationship stable (Essay III). Essay III assumes, for example, business relationship systems to be stable as long as the two parties contribute to each other with more cooperative advantages than the second best alternative. Although, if the two parties had learnt from each other to a degree where their characteristics and resources (e.g. skills and productive knowledge) converge so much that they start to compete directly for the same energy and matter in the same niche, then the relationship system itself becomes destabilized.

Moreover, it must be considered likely that interdependency between subsystems in the music market system in the pre-Napster era substantially contributed to preserving that dominant system design intact (Essay IV).

**System hierarchy and emergent properties**
A third tenet of systems thinking treat units of analysis as being nested in a system hierarchy of interconnected and nested levels (Campbell, 1990; von Bertalanffy, 1972) – a system of systems. In a Campbellian system stance (Campbell, 1974, 1990), all levels of beings in a system hierarchy are interconnected, where any system of analysis to some degree is constrained and controlled by its subsystems (“upward causation”), while the subsystems also to some degree are constrained and controlled by the overall system (“downward causation”). This corresponds to the Darwinian commitment to a layered ontology that everything is interrelated, but with adjacent interconnected levels (Dopfer & Potts, 2004). That means that Generalized Darwinists view complex wholes as made up of smaller subsystems, which are made up of sub-subsystems, and all the way down to the smallest indivisible sub-element of an atom (Hodgson, 2004b).

In a stratified system view, it is assumed that a social system has emergent properties that cannot be reduced to assets of its subsystems at a lower level (Campbell, 1990). The existence of emergent property of a higher level is what separates levels according to a Campbellian system stance (Campbell, 1990). Hence, the assumption of emergent properties at higher system levels is a central fourth tenet of systems thinking. The tenet of emergent properties is closely related to an anti-reductionist position in the methodological debate. Whereas traditional methodologies with linear forms of analysis focus on the separation and isolation of variables and parts of the units under investigation, systems thinking supports a different
approach. The anti-reductionist position suggests that any system needs to be viewed and analyzed as a coherent assembly rather than an assortment of its fundamental components.

Both system hierarchies and emergent properties are closely interlaced with the post-Darwin history of ideas in economics and the other social sciences. Sociologist and economist Thorstein Veblen (1908, 2007 [1919]), inspired by Lewes (1875, 1879) contributed to the hierarchical system view in everything but name where an object takes different forms. According to him, societies and other social collective systems, and not only humans, have underlying memory-like constituents like intuitions, customs and norms and other types of emergent dispositions at higher system levels (above the single human being) that cannot be reduced to any of its subsystems. This is also a starting point that later evolutionists in economics and organizational studies have used (Murmann et al., 2003; Stoelhorst, 2008d), and, moreover, the anti-reductionist position is also fundamental to a Generalized Darwinian viewpoint where evolution is assumed always to be ongoing at multiple system levels.

Relating the notion of hierarchies to business relationships, such systems have in this thesis been conceptualized as the intermediate-level in a firm-relationship-market hierarchy of nested systems (Essay I). Following the anti-reductionist tenet of systems thinking then, a business relationship has emergent properties, e.g. relational routines (Essay I) and a governance pattern of interdependency, trust and norms (Essay III) that cannot be deduced, or understood, from only the sum of the properties of the two parties: In this case, it can be said that a business relationship is more than the sum of its cooperating firms, as governance patterns, relational routines, ties and interactions cannot be understood by isolating and studying only the single firm. Essay I addresses the proposition that the business relationship itself and not the firms should be made the unit of analysis in a Darwinian theory of business relationships. Moreover, Essay II and Essay III together also accentuate multi-level selection; namely that competition takes place on multiple but nested levels: At the same time as relationships compete with other relationships, a relationship is constituted of partners where within-relationship competition takes place in which the competing entities struggle against each other for power and a share of benefits.

In my empirical research, I have observed that the trajectories of relationship forms and features might be constrained to particular positions in a solidified market system, as in the Swedish music market in the pre-Napster era. Some underlying “rules” of the solidified market system were
assumed to determine a set of predefined positions in the whole system for business relationships to enter (Essay IV). As these rules cannot be deduced from any of the market actors, these must be seen as emergent dispositions of the market system itself. That was the downward aspect of the music market case. Although, when the old dominant proposition of market system design was finally driven towards a breakdown, and subsequently replaced, it was from creative solutions and innovations at the firm or business relationship level (Essay IV). The market system was only stable as long as the business relationships (and firms) that constituted it benefited from its arrangement. By its recursive feedback loop from a selective environment that tests and winnows out the least adapted amongst a set of heterogeneous varieties that is created endogenously “from the bottom and up” (Stoelhorst, 2008c)(meaning that the emergent level must be beneficial for the components to remain stable), the functional mode of explanation expresses mutual addiction between a creative unit of analysis and the selecting local environment. In business relationship terms, the business relationship composition that is least adapted to its local market system runs a higher risk of being winnowed out (Essay I). According to the Darwinian mechanism of selection, the selection of business relationships will promote selection for those relational dispositions that beneficially maintain or strengthen the current market system inside which these business relationships are nested. Hence, being true to the third and fourth tenet of systems thinking, a Darwinian assumption must be that the two levels, market system and business relationship systems – as system and subsystems, respectively – are interconnected and constrained by each other’s forms and characteristics.

**Goal-direction and feedback loop**

A fifth tenet of systems thinking is an assumption that each system is goal-directed and growth-oriented, meaning that the systemic interactions strive to result in optimization and growth (Katz & Kahn, 1966, von Bertalanffy, 1968, 1972). But in order for not all subsystems to achieve indefinitely growth, the importance of stabilizing feedback loops is highlighted as a sixth tenet of systems thinking. Changes in one component of a system might be positive for part of the whole system and negative for other parts according to some criteria (von Bertalanffy, 1968), accentuating the fact that systemic interactions and modifications lead to both negative and positive outcomes. The system’s regulating nature is important in order to explain what is limiting a system from growing indefinitely. The criteria
and mechanisms of feedback loops must, therefore, be charted if we want to explain system dynamics.

Darwinists support generally the idea that each evolving system strives for survival and growth (Dawkins, 1976). However, as evolution involves complex issues and all other systems – competing ones and ones at other levels in the system hierarchy – “have their own agenda” while also trying to optimize, this ongoing evolution makes global or local optimization unattainable. In exchange with its local environment, a Darwinian system is tested. This highlights the functional mode of explanation central to Darwinism, and the specific Darwinian trinity of variation, selection and retention that completes the explanation of adaptive fit. As noted in the previous chapter, a functional explanation works since the feedback loop (positive or negative) connects the result of manifesting a particular feature to the system’s competitiveness in striving to survive and grow.

In the Swedish recorded music market, episodes of positive feedback to business relationships that manifested characteristics that favored the larger market system’s competitiveness were observed. However, in an alternative and competing market system for recorded music – digital distribution – other manifested characteristics of business relationships than during the physical phonogram era earn positive feedback and thrive (Essay IV). Essay IV shows that the Swedish market for consuming recorded music as a whole is somehow inevitably limited for natural reasons (e.g. interest in music, resources in the system, and economic and demographic factors), and, hence, selection mechanisms caused the old market system to struggle once the alternative market system started to increase. In similar terms, it could be assumed, for example, that a business relationship whose governance changes to not balance unilateralism with bilateralism any more will struggle in between-relationship competition. The whole market system feeds back less cooperative advantages to the business relationship that the partnering firms can split (Essay III). Hence, while every single open, complex system may be assumed to strive for selfish goal-seeking, it cannot be assumed that all succeed. If the energy and matter from the larger system cannot support growth to all alternatives, the least adapted run the highest risk to fail and diminish. Winnowing out the least fit is the larger system’s way of striving towards optimizing and becoming more aligned to the even larger system in which it is nested.

Whereas feedback from system to subsystem can be explained by the bigger system’s striving for optimizing and growth, the complete feedback loop is a circle of both upward and downward causation. Essay II assumes
that, in order for cooperation to persist, the business relationship must feed back positive outcome to both parties. This notion draws on the words of Stoelhorst: “any increase in adaptive complexity [i.e. new cooperative arrangements] must therefore be understood in terms of how it solves the conflict of interest at the level of selection that preceded it” (Stoelhorst, 2008c, p. 9). In essence taking the voluntary nature of participation in business relationships in free enterprise economies into consideration, both parties must be somewhat pleased with the cost-benefit tradeoff for the business relationship to be stable in the course of time. Thus, if we want to explain adaptive fit on the level of business relationships (and not at the firm level), it is assumed to be important to base this explanation on the notions of drivers of conducts of the participating firms, i.e. from the bottom and up in the system hierarchy. While firm interactions are based on the conduct of the employees (Nelson & Winter, 1982), it follows, logically, that business relationship interactions are based on the conduct of the partnering firms. Nelson and Winter (1982) advance a evolutionary (Darwinian-style) notion of the firm by their claim, but later they typically lost their evolutionary focus in favor of industry level phenomena, and collapsed much of the firms’ subsystem agency into the notion of the firm’s collective routines, and thereby they took the existence of the firm as more or less as given. Stoelhorst (2008c) writes that Nelson and Winter’s theory is “an elegant theory of why firms are different … but it does not explain why firms exist” (p. 39). Logically the same, if a theory that explain the origin and existence of business relationships are to be taken serious it must encompass drivers of subsystems’ conduct, and, moreover, be able to address how cooperation instead of competition favors each partnering firms goal-directed struggles (cf. Stoelhorst, 2008c).

**Input-to-output processes**

Any entity that that can be defined as a separate system itself, e.g. a human being, a firm or a business relationship, is believed to interact as a whole with the larger system in which it is nested, by responding (acting) to opportunities and stimuli in a way that serves its chances of achieving its purposes and surviving. A seventh tenet of systems thinking is that opportunities, threats and other stimuli from the outside are sensed and responded to by the system based on its composition – for example the routines, talents, experiences or beliefs of any social system (Katz & Kahn, 1966; Skyttner, 2006).
This tenet of general systems thinking has its counterpart in the Darwinian commitments. Darwinism concerns open systems that need supplementary inputs commandeered from the larger system they inhabit. How successful an open system is in commandeering energy and matters from the larger system’s scarce resources (e.g. from markets and peers in the case of business relationships), and exploiting it in competition with other open systems on the same system level, depends, according to the multi-level selection view, on how well the output characteristics of the system is aligned with the larger system (Maynard Smith, 1993).

Moreover, in Darwinism, the set of underlying (input) characteristics of a system equals the output characteristics of the previous round of variation, selection and retention. It recalls the idea that evolution is a history-dependent and cyclical process, as specified by the Continuity thesis. In Darwinism the genotype-phenotype distinction is central to its *explanans* (see Chapter Three). While the genotype stores adaptive success from one round of variation, selection and retention to the next, it can be considered as a container of the internal input instructions that facilitate and limit how the system interacts within the larger system, and, consequently, make evolution a cumulative and path-dependent process. Although mechanisms of variation creation make sure that selection mechanisms have a heterogeneous set of varieties to work on.

In this thesis (Essay III), it is suggested that firms, as open subsystems in business relationships, have an evolved capability to learn and absorb information from their partner (i.e. absorptive capacity). By absorbing energy (information) from outside itself (e.g. from partnering firms), a firm can likely, over time, infuse change in its own repertoire of capabilities and resources, which might allow the output characteristics of the firm to be in a better position to thrive than its previous set of characteristics allowed (Essay III). For reasons that I will soon return to, it seems critical to understand the nature and evolution of business relationships (and firms, too) in order to make a distinction between (genotypical) instructions that direct interactions/features and the (phenotypical) interactions and manifested outcomes *per se*. It is suggested in this thesis that the concepts of relational routines meet the criteria in Generalized Darwinism for the role of a genotype; it is, for example, shown that relational routines with high fidelity can store and preserve instructions for relationship governance and interactions that have been considered beneficial in earlier selections (Essay I). Essay I emphasizes that outputs in terms, for example, of manifested interactions, artifacts and governance patterns are controlled by the set of rou-
tines; its composition directs how the business relationship works and responds to external circumstances. I will, for reasons presented later, argue that even the concept of capabilities logically meets the criteria for a genotype in the business relationship settings.

By integrating cognitive attention literature with Darwinian ideas, Essay III contributes new insights into how and why performed absorption (including acquisition, assimilation, transformation, and exploitation) of external knowledge differs between the partners of a business relationship. Whereas previous studies (e.g., Hamel, 1991) have highlighted the importance of differences in the rate of knowledge assimilation between partner firms, a warranted contribution of the thesis and Essay III is a more detailed account of the consequences of asymmetrically realized absorptive capacity in terms of its effect on the conduct of partners and dependencies between partners, and how this may affect the business relationship durability. At the firm-level, Essay III’s proposition on how motivation informs how much partners learn from each other can be re-interpreted in the following way: that evolved routines govern how a firm directs energy to respond to different opportunities; and since motivation (and energy) to absorb new knowledge may be considered a scarce resource, that routine will govern whether the capacity to absorb knowledge is actually utilized in the specific business relationship (or whether that motivation is directed elsewhere). Over time then, repeated asymmetrical manifestations of partners’ absorptive capacity in a relationship will likely lead to changes in the distribution of knowledge, and thus cumulatively might lead to a dependency distribution that destabilizes the relationship. This more explicit Darwinian re-formulation of Essay III’s propositions reveals two important key components in Darwinian business relationship research. First, the nature of business relationships needs to be conceptualized in two-dimensions – namely highlighting both the genotypical dimension and the phenotypical dimension. Second, those iterations of input to output transformation are cyclical, meaning that output from one variation-selection-retention cycle is preserved in routines and similar genotypical instructions (e.g. capabilities) to become the start conditions in the subsequent cycle.

**Equifinality and multifinality**

A eight systems thinking tenet of equifinality states that a similar outcome (goal) can be achieved despite different system components via different paths (Katz & Kahn, 1966; von Bertalanffy, 1968). A ninth tenet of multifinality states that the opposite is also possible – namely that the same ini-
tial system components can result in different output and outcomes (Katz & Kahn, 1966; von Bertalanffy, 1968). These two tenets are each other’s opposite, yet intertwined.

In the business study domain, equifinal outcomes might, for example, be (but are not limited to) firm growth, business mating, the spread of features within a population, or the survival of the business relationship. It is reported in Essay II that radically different configurations, in terms of the combination of characteristics of constituent parties, can lead to similar success in forming a new relationship. Nothing in the Darwinian logic contradicts a potential to explain these kinds of equifinal outcomes. Two very different relationship compositions might both be beneficial and survive; as the existence and future preservation of a business relationship needs to be explained in terms of how well they succeed in the between-relationship competition (see Essay I). The results in Essay II draw Implicatively on systems thinking, and report that similar mating odds were achieved despite quite opposite initial system characteristics. From a broader perspective, claims about equifinal ways of reaching a goal, contribute to a Darwinian theory of business relationships from which greater understanding of, for example, business mating is possible. Moreover, it stresses that the mechanism of selection processes (adaptive fit) is not about global optimizing, but rather about meeting what the local environment is currently demanding, resulting in temporarily adaptation or equifinal end states.

Equifinality in our domain might also mean that two business relationships manifest similar characteristics despite different rule-like instructions. Is that compatible with a Darwinian theory? The answer will also be a qualified yes. Generalized Darwinism is said to be general enough to support explanations of evolution of all kinds of open, adaptive systems while focusing on how the interdependent links in which genotype and phenotype co-inform one another and transmute in a dynamic process mediated by the local environment (Sober & Wilson, 1994). While arguing that we cannot empirically tell what the underlying evolved collective-level routines (genotypic material) are only by the manifest patterns of actions, Hodgson and Knudsen (2010b) elaborate that copying errors and misreading instructions can destroy the coherence between instructions and the manifest outcome. Logically, the outcome of these errors can either be that different sets of routines give rise to the same manifest features (i.e. equifinal outputs), or that two identical routines, or sets of routines, might generate different observable outputs (i.e. multifinality).
Concerning the latter, the close link from systems thinking to Darwinism is fairly obvious. That is because two of Darwinism’s *explananda* are explaining multiplicity/variety from a common origin and the accumulation of complexity. Darwinism explains how the common lineage of, for example, a species divides and becomes two different species. For the variation-creating mechanism to work, copy errors, learning or any other sources to new instructions must be assumed. That multiplicity from common origins takes place in the socio-economic realms as well has been shown empirically by, for example, Quinn and Murray (2009). In their article, Quinn and Murray trace records of how the grocery markets in Britain and the Republic of Ireland evolved cumulatively from common UK ancestors into two increasingly different market logics, one more favorable for preserving voluntary groups of independent formats (wholesalers and retailers), and dominated by wholesalers, and the other dominated by large and integrated multiples (supermarket chains). Essay IV can also be reinterpreted as a story of multifinality from common origins. From one dominant system composition of the music market, two systems compositions derived. And, according to Essay IV, it was because the environment changed and opened up a fertile breeding ground for alternative system innovations based on digital distribution to be established.

In the following sections, I use what is proposed at this point in the chapter as a starting point to discuss in what way the composite of systems thinking and the explanatory logic of Generalized Darwinism offers an alternative to deal with conceptualizing the nature of business relationships (next section), and how this can be used to deal with theorizing and researching how business relationships arise and transmute (subsequent sections).

**The nature of business relationships**

This thesis assumes that to be able to explain its evolution we must acquire an understanding of the nature of business relationships first – i.e. how a business relationship is compounded, and what is enabling and constraining what is being manifest. As elaborated in Chapter Two, different academic approaches and traditions in business relationship research emphasize different elements of business relationships, which in turn imply demarcations in how business relationships are understood and studied. To explain how business relationships arise and transmute, it was proposed at the end of Chapter Two that it is fertile to conceptualize a business relationship as an open, complex system, a “Darwinian system”. Starting in
the generalized Darwinian framework and the tenets of systems thinking, and treating business relationships as Darwinian systems, the present section tries to prepare a response to the first research question of this thesis, “In what way does systems thinking paired with Generalized Darwinism offer an alternative for dealing with conceptualizing the nature of business relationships?” The two essentially different conceptualizations presented in Chapter Two form the focus for this response.

From a Darwinian systems thinking view, nature and evolution are interrelated as input-to-output transformation is iterative – an output of an evolutionary cycle represents input for the next cycle, and so on. Thus, in order to tackle the difficulty of conceptualizing the nature of today’s business relationships we must weigh the past actions and the genotypical/memory-like constituent of collective relationship-wide nature that store its results. As outlined in Chapter Two and in Essay I, different literatures highlight different aspects or characteristics of business relationships. Chapter Two addresses the idea that there is no consensus in marketing concerning a generic way of defining the nature of a business relationship. A demarcation line can be drawn between camps that concentrate on the underlying constituents that store instructions that direct interaction (such as routines and capabilities) and camps that concentrate on manifested interactions and relational governance and produced artifacts (characteristics that can be observed).

Bridging these two camps is not trivial, but warranted in order to elaborate an understanding for how inputs are facilitating the outputs. From a Darwinian point of view, the units of analysis are dual (Sober, 1984). If a feedback loop that links the beneficial effect of an expressed characteristic to its preservation can be ascertained, than it makes the functional explanation more than a “just-so” story, as the feedback loop re-establishes the logic of causality. In Generalized Darwinism, there is a close association between genotype and phenotype, with a selection of phenotype that informs the preservation of genotype that in turn directs future phenotypical characteristics, in an ongoing interplay between the two. Thus, to ascertain the necessary feedback loop, a Darwinian account needs to specify a dual unit of analysis of business relationships. In this account, the observable characteristics (phenotype) are complemented with memory constituents (genotype) that preserve and instruct the nature of the characteristics.

In the strategic management literature based on resources and capabilities that concentrates on how the single firm benefits, the business relationship may be described in terms of the disposable “capacity to do” stored in
its memory constituents of genotypical nature. Hence, the relationship is – as noted in Chapter Two – from the resource-based camp often viewed as a repertoire-composition of the emergent relationship-level shared and co-created abilities that facilitate and restrain cooperative actions. In other words, the business relationship is in that literature mostly defined by underlying capacity, which fulfills a role logically equivalent to that of the genotype. On the other hand, a business relationship may be described by a different camp in terms of the manifested relationship-level governance and connectors, which is a central feature in how, for example, Håkansson and Snehota (1995), Eyuboglu and Buja (2007) and Alderson (1965) characterize business relationships (or “transactions” in Aldersonian terms).

Indicated in Essay I, these two broad camps may be bridged if we apply the genotype-phenotype duality and re-conceptualize the business relationship as a Darwinian system, a system that, on the one hand, has manifest characteristics such as the multivariate connectors and other manifest relational governance, focused, for example, by the Markets-as-Networks scholars but also other traditions (see, for example, Eyuboglu & Buja, 2007, on relational governance), but on the other hand, that these manifest characteristics are instructed by the underlying capacities stored in memory-like constituents that the knowledge- and capability-based literature concentrates on.

Essay I adopts the accepted view that the collective routines – as self-actuating instructions for collective interactions – are good candidates to fill the role of the genotype that contains instructions for business relationships. However, as stated above, there might be other similar concepts of dispositions that fulfill that role to direct interactions by having the potential for storing information based on historic events. A business relationship (as the logical equivalent of the phenotype) may be considered to be instructed, enabled, and limited more by a particular bundling of routines than by single routines. Such bundling of routines is consistent with what in resource- and knowledge-based streams of marketing and management literature is referenced to as a “capability”: the possessor’s internal capacity for execution (Foss, 1998; Winter, 2003). According to Winter (2003), a capability is a particular collection of routines that can develop assets into outcomes. Defined as some kind of higher-order “meta-routine”, it can be claimed that capabilities are path-dependent, and are reproduced in social interaction within firms and between firms in business relationships. Hence, I will claim that the capability share with the single routines the necessary features of a non-biological genotype in a Darwinian theory.
Specifying the genotype and the retention mechanism is necessary to explain, for example, the adaptive fit of business relationships and the accumulation of their characteristics in the course of time.

Essay III discusses other genotypical instructions of firms in business relationships; absorptive capacity and instructions that direct motivation, and highlights at the level of the individual firm the notable discrepancy between how much knowledge a firm is capable of absorbing from its partner, and the amount of knowledge actually absorbed. Essay III shows that this difference is related to the degree of energy (cognitive attention) that a firm directs to the particular relation. Essay III illustrates in this way the importance of making a distinction between input, or “the capacities to do”, and output, or “the manifested performance”, in the particular business relationship in a way that draws on the genotype-phenotype distinction/duality. Broadening the view, in a business relationship, both each firm’s individual absorptive capacity and the relation-level routines and capabilities to commandeer energy to the relationship that emerges from integration resources can be seen as either potentials or manifested performances. Accentuating this distinction marks a re-conceptualization compared to the widespread definition offered by Zahra and George (2002). Furthermore, Nelson and Winter (1982) are also unclear whether routines in their theory represent dispositions or manifested characteristics and actions, or a mix of the two. The fact that previous works had conflated these two logically distinct aspects, is acknowledged by Feldman and Pentland (2003), who calls for more research into the differences between routines as normative instruments that direct action (“ostensive” aspect) and routines as actual performances or behavioral outcomes (“performative” aspect). Drawing on the genotype-phenotype distinction, and acknowledging the difference between input (instructions) and output (forms, conducts, and so on), I consider it important to clearly define routines and capabilities as nothing more than genotypical instructions that set the potential and direct interaction and the form and characteristics of business relationships. As demonstrated by Hodgson and Knudsen (2010b), there is no one hundred percent compatibility between “the blueprint” (the system plan) that the genotype is possessing, and the realized outcome. In this way, the genotype-phenotype distinction is established in a Darwinian view of the business relationship. Following the Darwinian *explanans* presented in Chapter Three, a separation between the two is needed for a Darwinian explanation to work. Both dimensions are crucial in order to be able to explain the cycling nature of input-output molding that produces adaptive
fit, and that cumulatively can explain variety from common origins. I believe, for this reason, that it is possible and likely fruitful to integrate key concepts from both the literature that concentrates on underlying constituents that facilitate interaction and the literature camps that focus manifested actions and connectors *per se*. My belief is that Generalized Darwinism, for the reasons just mentioned, offers a theoretical frame to sort out the links between the aspects. I acknowledge that a diversity of ways of conceptualizing business relationships exist throughout the range of existing literatures, but propose that defining business relationships strict as Darwinian systems offers a new and alternative way which, I believe, is a fruitful starting point in order to be able to explain how a business relationship can arise as a way for two firms to strengthen themselves, and how a business relationship persists and transmutes – i.e. how it evolves.

Summing up, this section has elaborated on the Darwinian genotype-phenotype duality and defined a business relationship as a Darwinian system. As business relationships have both the manifest characteristics described, for example, by Håkansson and Snehota (1995) and others, and the underlying potentials, focused on by, for example, Dyer *et al.* (2008) and others, the Darwinian way of making a distinction between manifest characteristics and instructions for these offers a way to bridge findings from two camps in the business relationship literature. Moreover, the systems thinking approach implies that the business relationship can be conceptualized as a system level between firms and markets in a nested hierarchical system of systems. Being true to the anti-reductionism of systems thinking, at least some emergent properties of the business relationship cannot be reduced to any of its founding parts. For example, resource integration and co-operative work leads to relationship-level routines and capabilities that are emergent properties on the business relationship level of analysis. The manifested characteristics of the relationship denote the mutual arrangement of the subordinated parties in the relationship (how they relate to each other and how they interact). The instructions for these characteristics are preserved in the underlying memory constituent of the relationship (in, for example, routines and capabilities). Essays I and III have helped to develop my view of business relationships, while Essays II and IV see the inception of a business relationship as an outcome of firm-to-firm mating, and to some degree as constrained and selected by the evolving market system, respectively.

The next section will use this alternative dual conceptualization of business relationship drafted in order to analyze how it might favor an alterna-
tive frame of theorizing that can help us explain the evolution of business relationships differently than, for example, the heavily criticized life-cycle model.

**Towards an emergent domain-specific Darwinism**

One significant difficulty in explaining how business relationships arise and transmute was addressed in the previous section – namely the conceptualization of a business relationship. In order to explain the evolutionary processes, it was proposed that specifying a new conceptualization of business relationships strictly upon the genotype-phenotype distinction offers a way forward. Based on that re-conceptualization, this section addresses how an explanation of business relationship origin and transmutation can be offered from systems thinking and an application of the generalized Darwinian *explanans*. As will become apparent below, this way of explaining business relationship evolution is fundamentally different from the criticized life-cycle stage models of business relationships (Dwyer *et al.*, 1987). This section thus aims to respond to the first part of the second research question, concerning “In what way does systems thinking paired with Generalized Darwinism offer an alternative for dealing with theorizing how business relationships arise and transmute?”

As the issue is complex and requires some space to answer, the section is divided into sub-sections organized as follows. First, the central explanandum of adaptive fit is explored for business relationship evolution followed by two subsections that dig deeper into the mechanisms that increases and trims, respectively, the set of instructions for business relationships. In the second part, the evolutionary process for a set of business relationships on a longer time horizon is illustrated, accentuating the population thinking in Darwinism. Lastly, I explore how a Darwinian theory true to systems thinking can deal with the interesting question of how business relationships, as an additional level above that of firms with emergent properties, can arise and persist. A schema to illustrate bi-directional causation in the system hierarchy of interconnected firms, business relationships and market systems is introduced and discussed.

**Premises for explaining the adaptive fit of business relationships**

Critics of functional explanations in the social sciences have rightly pointed to the fact that functional explanation is tautological or “just so-stories” without complementary theories, that it provides little new knowledge to say, for example, that a particular characteristic works because it is func-
tional or good or fit. This claim contains its own justification. Functional explanations have even been accused of being illegitimately teleological – that it supposes that everything exists because of it has a purpose, and that selection is directing towards some global optimization according to some mysterious divine plan. This criticism must be handled very carefully. However, this criticism could be offset by establishing a set of strict prerequisites, which the use of functional explanations to account for selection through the Darwinian *explanans* do possess (Stoelhorst, 2008a). The needed prerequisites are specified where only previous survivors of selection become the basis (input) for further iterations, and the multi-level hierarchy defines the “local environment” under which conditions each system should manifest functionality to in order to persist.

Alderson’s (1965) work can be criticized for predefining that it is economic efficiency that determines the functionality, while I, from a Darwinian point of view, must assume that, for example, legacy seeking in some populations might also be as important to be judged fit and functional by the larger system (cf., Meyer & Rowan, 1977; Veblen, 1899). But in combination with a thorough understanding of the local environment and broadening the approach to what makes for fit/functionality, I believe it possible to interweave Alderson’s theory, fundamental to marketing thought, in a Darwinian research programme in specifying the selection process.

Let me explain how with an imaginary example of a Darwinian-style functional explanation inspired from the Aldersonian setting. In this example, the function (A) is low transaction costs, B is a feature of inter-firm cooperation, relation-wide bilateralism, and C is business relationships in a particular local environment. I recapitulate from Chapter Three that the first condition of a Darwinian functional explanation explains that the conditional outcome (A) is a consequence of the particular feature (B): that relational-wide bilateralism give rise to relatively low transaction costs between cooperating firms. The second condition claims, then, that the function, low transaction costs, is beneficial for business relationships in that market system (C), while the third condition stipulates that business relationships (C) that possess this particular bilateralist disposition (B) have somehow better chances of proliferating and gaining appreciation in the population of relationships than those competing business relationships that do not possess it. So in this example the Darwinist will conclude that the relational routines instructing for bilateralist actions have good chances of persisting in this population of business relationships working in a local
environment. In other words, the mechanism of a not completely random selective preservation disfavors the least adapted “restores the logic of cause and effect by specifying how variations in a population of entities is reduced so that those variations that work best in the system’s local environment are retained” (Stoelhorst, 2008a, p. 419). Inspired by Eyuboglu & Buja (2007), another example of the functional explanation that fulfills the Darwinian demand to link the beneficial effect of having a feature to its prolonged existence go this way: integration is an effect of mutual adjustments; integration is beneficial to the business relationship; and integration maintains the relationship-level peculiarity of striving towards common goals, because integration increases the chances to feed back energy and matter for partners to share from the between-relationship competition. These were two examples of how Darwinism applies functional explanations without lapsing into tautological claims. The logic of causation is restored by linking fitness of the characteristics to the system-level competitive benefits of the system.

What becomes obvious is that the Darwinian trinity of variation, selection and retention is iterative in nature but not tautological, and the process itself is not goal-driven, albeit, being true to systems thinking, every individual system is assumed to be determined (consciously or unconsciously) to grow and to persist. At every moment, the previous adaptation is the basis for the next loop, and the variety-creating mechanisms (not part of the functional model) assure the necessary variation in the population by infusing new “evolutionary innovations” (new genotypical variation) to this. These new genotypes are seen as alternative blueprints that enable the manifestations of new characteristics and behavioral patterns that might or might not be better suited to the local environment. In essence, variation creation is mainly an endogenous process, while selection is mainly an exogenous process. Moreover, in a situation where the future is to a large degree unknown, one might also assume that the evolution is rather myopic – from two aspects. Firstly, a Darwinian explanation, unlike neo-classic explanations, rejects the thesis of free information and fully rational agents. The firms and business relationship involved will manifest characteristics in any given situation based on its current bounded repertoire of routines, capabilities and similar dispositions. Secondly, the selector is believed to be myopic too. Selection is based on what is at the moment fit or unfit. Consequently, unfit business relationships or unfit relationship characteristics that “should have been good to keep” based on what we retrospectively know have in many situations probably been ab-
olished and forgotten, since they did not help to serve wants and needs (value for stakeholders, community, customers, and etcetera) at that time. However, a changing market system offers a changing survival rate, and alters the odds of the success or failure of business relationships. Therefore, business relationships (and characteristics of these) that are fit or unfit today are not *per se* fit or unfit forever when the market system in which they are nested changes. Though, as regards the myopic nature of selection, the relationships and characteristics of today must most likely manifest fitness in at least some respect in order to be sustained and to be able to compete tomorrow, i.e. the output of today’s competition shapes and sets the rules for the competition of tomorrow according to the Darwinian commitment to the Continuity thesis (see Chapter Three).

This sub-section has discussed how a Darwinian theory uses the functional mode of explanation to explain the selective preservation of favored variation. Next, turning our attention back to specifying the details of how variation is created and selective preservation trims the variation in the business relationship settings, the subsequent two sub-sections dig deeper into how these mechanisms work.

**Randomness and dynamic capabilities as sources of variation**

Concerning how variation is created, Essay I discusses some possible mechanisms that create variation in the constitution of business relationships. It is there proposed that variation can be both consciously and randomly created, and derives, for example, from incomplete copying or copying errors, conscious action by the parties and even from completely random causes. Both as argued in Essay I and according to how other Generalized Darwinists have been reasoning previously (Hodgson, 2004a; Hodgson & Knudsen, 2006; Stoelhorst, 2008c, d, 2010), it is viewed as a serious mistake to think that Darwinism *per se* would exclude intentional agency. As systems thinking assumes that each system in a system of systems is goal-directed, and nothing in the Darwinian *explanans* excludes the idea that the actions within a system can includes intentional agency, in order to explain the evolution of business relationships one must also explain the emergence of instructions that direct a system’s objectives and rationales, and also the selective preservation (or lack thereof) of these instructions encoded in the genotype. This means that a Darwinian explanation does not only explain the existence of the genotypical instructions for how business relationships operate on a daily basis and interact within the market system, but also explains the evolution of higher level instructions. For
example, a system’s “intentional agency” is, according to Hodgson (1998, 2004a, 2010), also directed by the genotypical instructions and should be explicable with the same Darwinian explanans. It was highlighted above, based on reasoning in the essays, that routines and similar concepts, e.g. capabilities, can play the role of genotypes and thus possess blueprints for the form and characteristics of the manifest business relationship (the phenotype). In addition to possessing instructions for daily operations, some routines and capabilities are alleged to inform the underlying mindset of the business relationship through some kinds of “mindset capabilities” or “second-level routines” with the disposition to infuse change.

Essay I notes that new variation and discontinuance can arise from intentional processes such as innovation and imitation and not just from blind and unintended processes. Some old lines of evidence that were rediscovered are that in environments that change quickly, evolution favors those entities, systems, which have the evolved disposition to be able to acquire new characteristics that are beneficial (Baldwin, 1896; Morgan, 1896). In other words, the argument that selection promotes business relationships that can exploit beneficial operational routines must be broadened also to incorporate an argument that the manifestation of a propensity to change itself increases the likelihood of surviving, at least in turbulent markets. The term used in biology for this propensity is “evolvability”. It is based on an evolved disposition possessed within a system to generate new selectable phenotypic variation (Kirschner & Gerhart, 1998). I believe that the concept of a “dynamic capability” (Augier & Teece, 2007; Helfat et al., 2007; Teece, 2007; Winter, 2003), if re-defined strictly on the broadest meaning of genotype, would fulfill an equivalent role in the business realm.

It is accepted in resource-based and knowledge-based theory in the tradition of Teece and others that the potential for innovation and reconfiguration of assets comes from the context- and history-dependent dynamic capabilities of the entity. One could say that dynamic capabilities, the abilities to infuse change endogenously, do not directly instruct how daily operations are performed, but how a set of operational capabilities (and routines) can be renewed. While operational capabilities are the capabilities that enable and limit daily activities (“how we earn a living now”)-capabilities according to Winter, 2003), dynamic capabilities are widely accepted in contemporary marketing and management literature as an entity’s capacity “to purposefully create, extend, and modify its resource base” (Helfat et al., 2007, p. 4). Thus, consistent with, for example,
Schumpeterian theory (Schumpeter, 1934; Winter, 2006), dynamic capabilities involve endogenous innovation capacity, creativity, and talent in combining assets into something new, and they also involve the business’s ability “to integrate, build, and reconfigure internal and external competences to address rapidly changing environments” (Teece, Pisano, & Shuen, 1997, p. 516).

In a Darwinian theory specified for business relationships, a dynamic capability can be seen as a genotypical instruction along with routines and operational capabilities. In particular, this instruction enables a business relationship to reconfigure itself and creates new relational-level routines and capabilities that potentially inject variation. Thus, this is a dynamic capability function as a protection capability to prevent the relationship from being weeded out in selection processes. I must acknowledge that dynamic capabilities—like operational capabilities—are neither planned nor wholly recognized by the entities that possess them, according to a widespread view (Zollo & Winter, 2002). It is important not to confuse dynamic capabilities with changes per se. A dynamic capability indicates the potential to learn and change, while evident change is the outcome of any internal or external interaction. Business relationships (the phenotype) can change without possessing dynamic capabilities, and they can stay stable while possessing dynamic capabilities but not enacting them.

Being loyal to the anti-reductionist tenet, it must be assumed that even business relationships—not only humans or firms—can possess dynamic capabilities (evolvability) to infuse change in the manifest form and characteristics of the relationship. I will assume, for example, that an entrepreneurial disposition in a business relationship, as a relational-level dynamic capability, makes beneficial changes a little bit more likely than it would have been without. Veblen (1898, 1899, 1908) was an anti-reductionist and an early advocate of the importance of institutions as rule-based containers of collective mind and memory. Veblen was an admirer of Darwin, and from a re-reading of Veblen’s texts through the lens of modern Generalized Darwinism, it should not be problematic to propose that higher order systems have memory constituents too, for example collective routines and capabilities, which store the genotypical instructions of open, complex systems at cultural-social levels above the human being (see Foss, 1998; Hodgson, 2004b, for a full review of Veblen’s works).

In my essays, I find more examples of other genotypical instructions of collective nature above the level of the individual that contain the potential for endogenously infused change. The disposition directing cognitive atten-
tion (Essay III), absorptive capacity (Essay III) and a disposition for entrepreneurial orientation (Essay II) can, from a Darwinian point of view, all be seen as mindset capabilities containing a dynamic capability that can infuse change to the system disposing them; and, moreover, if they are at a higher system level seen as emergent properties above the single individual\textsuperscript{15}. In the same way, it may be accepted that business relationships through interactions with the wider system can copy or transmit the mindset capabilities of traditions, norms, and the capacity for changing the relationship itself (Essay I). To complete the Darwinian argument of how business relationships evolve adaptive fit it does not matter exactly how the repertoire of capabilities and routines are changed. Essay I concludes that it probably can be done in many different ways. For the examination of the Darwinian explanation in our domain, it is most important to establish that variation-creation happens.

**Selective preservation and adaptation as an outcome**

To focus once again on selective preservation, from a Darwinian point of view, it is suspected that there is a selection mechanism trimming the set of existing variation, and a retention mechanism that stores the adaptive instructions. As noted above, Darwinism borrows the functional mode of explanation to explain how selection works. A direct consequence of selection is that the variation of business relationship forms in the particular local market system (or sector of) decreases over time if no new variation is generated in parallel. From a Darwinian point of view, it is assumed that the manifest business relationships that are least aligned are more likely to be winnowed out, and then the composition in the preserved set is trimmed and, hence, variation decreases in the particular set of business relationships (Essay I). In the Swedish music market case, introduced in the first chapter, the institutionalized market logic in the era before computerization, internetization and digitalization awarded business relationships that reproduced these structures and, hence, the selection mechanism trimmed the set of routines and capabilities which, in turn, facilitated only slight variation in the manifestations of business relationships (Essay IV).

From the discussion above, the randomness in the selection processes must be highlighted and acknowledged. Selection does not pick out the fittest, but the least fit are the one most likely to be winnowed out. The increased risk of the least fit being winnowed out will, in course of time,\textsuperscript{15} It must be acknowledged, however, that entrepreneurial orientation in Essay II is measured on the level of the manager.
trim the variation. It must be acknowledged too, that causality in its Darwinian sense does not mean predictability. No matter how much detailed information and data we collect, the tenets of systems thinking hold that the conducts of the individual business relationship is almost impossible to predict perfectly. Open, adaptive systems are capable of generating stochastic outputs (characteristics; interactions, etc.). The premises of the Darwinian explanans make it hard even approximately to predict the evolution of the individual business relationship. However, on a population level it seems somewhat easier to capture the effect of selection. Darwinian models are, therefore, typically based on populations of entities and not on the individual entity. It is populations of similar but not identical entities that have profiles that demonstrate its distribution of characteristics. So, in addition to the systems thinking already noted, Darwinism derives its strong point from population thinking. This means that selections working on business relationships should probably be seen as the variation within a population decreases, and, I assert, that it is at this population level Darwinism methodologically has the most to offer to business relationship research. Not least, because Darwinism assumes a relativistic rather than absolute approach to “fit”, the individual relationship’s fitness must be seen in the light of the alternative solutions that may fulfill the same position/role in the larger system. It is from the population thinking horizon that Darwinists accept as true that an outcome of the selection test – the posterior set – is more adapted to the wider system it is nested in than the set – the anterior set – was before selection. So, even though all the entities of the posterior set are similar to entities of the anterior set, selection makes the posterior set more adapted to the local environment than the anterior. “Being adapted” does in Darwinian terms not automatically mean, for reasons I will turn to next, that the individual business relationship has become better adapted or been affected at all. This statement only means that the remaining business relationships that passed the test are on average fitter and better adapted.

The concept of adaptation deserves a specific mention, as it can cause a lot of miscommunication. The term is used in very different ways in mainstream management and marketing literature than it is in Darwinism. Used as a verb – “to adapt” – the word expresses an intended (reactive) action by the single entity to adjust to better fit the larger system’s desires. For example, it can be said that firms within business relationships mutually “adapt” plans and strategies to integrate resources (Hallén, Johanson, &
Seyed-Mohamed, 1991). In Darwinian terms, however, the subsystem’s endeavor to fit in the larger system must be seen as a sign of evolvability.

In a Darwinian marketing theory, “adaptation” has quite a different sense. The fact that a population of entities becomes adapted to the local environment is in Darwinian terms seen as a function and a by-product of the variation, selection and retention mechanisms, and only indirectly as a result of intended or unintended actions that the parties themselves perform (Mayr, 2001). Hence, in the later case adaptation takes place on the aggregate level when the selection mechanism gives members (varieties) of a population with competitive disadvantages in their environment vis-à-vis other members a lower probability of continuing to work within that population, e.g. for reasons noted above. Thus, if the local environment cannot support all the varieties, the least suited are winnowed out and the distribution of characteristics in the population “is adapted”. Although it may be acknowledged that individual business relationships may change by intention or randomly (variation-creation), adaptation does not per se mean that any particular business relationship in a population of business relationships has been fitter in the sense of better adapted. Again, adaptation in Darwinism merely means that the average member of the population is better adapted to the environment since the least suited has disappeared. Population thinking, I assert, is a necessity for a Darwinian system approach in order to explain adaptive fit.

**Evolution over multiple eras**

While systems thinking and the functional mode of explanation propagates the importance of fit in relation to the larger system the focal system is nested in, a Darwinian theory of business relationships needs to examine the market system – and in particularly the business relationship and market system interactions. Population thinking highlights the set of business relationships and the distribution of variety in this set throughout the particular market system.

The analysis in Essay IV includes a significant tipping point of discontinuity in the market system. It took place when Napster, followed by a range of new services for peer-to-peer digital distribution that in combination with a changed community situation in Sweden thanks to digitalization, computerization and Internetization, paved the way for the competitive advantages of a fundamentally new kind of market system, which is predominantly based on an online logic. While the illegal piracy-services had no contractual ties to record companies or distributors, the new mar-
ket system nevertheless introduced challenges in the between-relationship competition. The new (legal and illegal) varieties presented in the wake of Napster shook the industry to its foundations and paved the way for a wholly new market system also including new or radically re-organized varieties in the set of business relationships and nested firms. In the vacuum after the shock and collapse of the old-established solutions that had long dominated in this system, opportunities arose for new unorthodox relationships constituted radically differently than during the previous era.

Essay IV borrows the terms “era of incremental change” and “era of ferment” from industrial change literature (Anderson & Tushman, 1990), which in its modeling of processes of technological change examines the idea that once designs or design features (in product classes) win domination, technical progress slows down and the logic of competition changes. It may be compared with how Campbell (1974, 1990) argues that the whole system affected subsystems: In the conception state of a system, the construction is not steadfast. In such eras, before the system is solidified and the mutual positions of the subsystems are reached, even small flux would re-construct the system. At one point, however, the system (as a whole) finds a composition that is favorably aligned to the wider environment, and also is stable in terms of feeding back benefits downwardly. Once such balanced positioning in the supra-systems is reached, Campbell (1974) stresses that dynamics slows down and the subsystems then becomes strongly constrained by the larger system. Anderson and Tushman (1990) find that a good indicator of impending change in market conditions is the emerge of a dominant design. Once the proposition for how to solve a problem (technological, in their original model) becomes so dominant that all actors in the market or sector have to relate to it, the degree of flux and innovations in that domain slows down. Instead of competing with their own propositions, manufacturers start to adjust to, copy and reproduce the dominant character features. As a consequence of reduced variation and predominance of one or a few solutions at a (technological) system level, competition changes to be based on variation at subsystem level.

In Essay IV, I applied this theoretical model to competing market systems. So, instead of dominant technological solutions, the unit of analysis is the market’s organizational arrangement. I observed, based on historical records, that the music market in Sweden in the 1990s had a dominant arrangement for market channels that strongly constrained the position of its subsystems, the business relationships. This lasted until Napster and its
descendants infused competition on the market system level at the turn of the century that consequently put the entire market back into an era of ferment. Just as the original model from industrial change literature predicts, I can in Essay IV show that this new era of ferment allows much more variation in organizational arrangements, as market-pressure and peer-pressure selection did not trim away organizational innovations in the same way as before.

To summarize the argument made here, Murmann and Frenken’s (2006) variation, selection and retention schema can be used to illustrate how a Darwinian theory of business relationship evolution might be constructed. While they and Anderson and Tushman (1990) both discuss evolution of technologies in product classes, I assert that this schema is also useful in order to illustrate the Darwinian thoughts of how business relationship forms arise and transmute. While the market system is stable, as in an era of incremental change, selection likely feeds back advantages to those business relationship arrangements that have already proved to be fit in previous iterations. Whereas, when no dominant blueprint reigns at the market system level, then the opportunities for innovative business relationship constellations are bigger. This corresponds well with findings in Essay II and Essay IV.

![Figure 2: An evolutionary schema](image)

*Left and right boxes are eras, while top and bottom boxes are the transition points in between (reprinted from Essay IV; originally from Murmann & Frenken, 2006).*
This schema also harmonizes with findings in the natural realm. Some biologists and Darwinists in the wake of Darwin have depicted the evolution of species not as a gradual process at constant speed, but rather as stability interrupted by short periods of amplified flux due to changing conditions in the environment (Eldredge & Gould, 1972). Drawing on a punctuated equilibria view, organizational theorists have portrayed market transmutations in similar ways (Gersick, 1991). These longer equilibrium-like eras of stability are punctuated by shocks, shorter eras of ferment and intense transmutations. Stability with brief bursts of upheaval is a typical pattern of transmutation of markets that has also been supported in empirical studies (see, for example, Romanelli & Tushman, 1994). In terminology, these models sometimes borrow Darwinian concepts, for example variation, selection and retention (Anderson and Tushman 1990; Murmann and Frenken 2006).

The basic forecast of this schema translated to the business relationship domain is that the blueprint for business relationships, stored in the set of routines and capabilities, and the environmental conditions defined by the market system alike, for much of the time change slowly (Era of incremental change). Under solidified conditions at the market level the same business relationship characteristics are likely rewarded by the selective preservation mechanisms in multiple rounds, and become solidified. Instructions that direct the manifest characteristics of each particular Darwinian system (firms, business relationships and market systems) are seemingly preserved with high fidelity in equilibrium-like stable eras. This seemed to be the story in the music market study (Essay IV), but I suspect the same schema is fruitful to use to demonstrate the evolution of business relationships as well, since market systems and business relationship systems as Darwinian systems are closely interconnected in a nested system of systems.

In summary, while the retention-selection-variation algorithm primarily explains the adaptive fit in the single iteration, the schema sketched above can be supportive in relation to the cumulative process over longer periods, or the macro-iterations, which also correspond to the Darwinian *explanandum* that new varieties arise from similar origins.

**Multi-level logic and the emergence of business relationships**

According to the tenets of systems thinking, various systems in the firm-relationship-market hierarchy are subject to evolutionary pressure at different system levels. Defining business relationship as a dual dimensional system within a hierarchical rank of systems, the business relationship itself
takes form as an emergent social system at an emergent level of competition and selection, above the level of firms. The promise from the Generalized Darwinian literature is that both the emergence and the existence of business relationships are suspected of being explicable in terms of a Darwinian explanation encompassing multi-level selection that links within-relationship cooperation to between-relationship competition (see Essay I).

To explain the emergence of a higher level of social systems (the relationship) above that of the subsystems (the firms in this case), Maynard Smith and Szathmary (1997) argue that one must address the advantages of within-system cooperation on the success in competition between systems. Following Stoelhorst (2008c), the introduction of a new social system, or level, above the existent levels, is the parties’ way of strengthening their own position by cooperating instead of competing. Thus, from a Darwinian system approach, the firms’ bilateral conducts (cooperation) that stabilize and helps preserve an optional business relationship must be addressed in terms of how it increases the individual firms’ chances of securing scarce resources to retain and thrive (cf. Eyuboglu & Buja, 2007). This is in line with contemporary literature stating that firms cooperate to edge forward in their individual competitiveness (Hunt & Morgan, 1995), and in line with the empirical findings in Essay II which address the idea that collaborations arise when both firms are favored in the struggle against direct competitors in their niche.

A Darwinian re-analysis of Essay II is that startups propose and intermediates respond to the same basic need for benefits that edge each party’s competitiveness: That business mating takes place because it gives a competitive edge to both parties in their competition versus similar firms in the same market niche. Drawing on multi-level selection, a relationship will likely remain stable only as long as the business relationship feeds back net benefits to both sides that are greater than the alternatives. By comparison, over a hundred years ago Veblen argued that institutions of social classes are preserved because they favored the individual being loyal and useful to the class by reproducing the class symbols and habits (Veblen, 1899). In his case, within-class cooperation feeds back benefits to individual members of the class that pursue their own interest. In the Veblenian example, the stability of the alignment could be seen as a result of group-level peer pressure – to enjoy the fruits of being loyal – and a Generalized Darwinist would include conformity to group in the criteria of fitness. Darwinists uphold the idea that the structure of a higher level can change preferences and dispositions at a lower level – in the Darwinian explanation; this is done by the
feedback from selection that disfavors the least well-aligned in a set of competing entities.

**Figure 2: An evolutionary schema**

Left and right boxes are eras, while top and bottom boxes are the transition points (reprinted from Essay IV; originally from Murmann & Frenken, 2006).

**Figure 3: An illustration of multi-level evolution**

(adapted from Johansson & Kask, 2011, unpublished manuscript)

The multi-level selection aspect of evolution is illustrated in Figure 3. It has been stated in the multi-level selection theory (Maynard Smith & Szathmáry, 1997) that the introduction of a new system levels encourages the center of competition to be lifted to a higher system level than before. Figure 3 illustrates a variant of that argument, proposing that, when there is an era of ferment at a given level, e.g. the market level, competition between competing varieties at that level dominates over competition at lower levels. For example, in the music market case (Essay IV), it was quite
obvious that the fate of a particular business relationship, or kinds of business relationship, in large part were due to what happened to the market structure they were subsumed in. However, the theory of industrial change also states that, when a higher level solidifies and enters the era of incremental change, competition will move (back) down a level to competition between variants at the subsystem level (Murmann & Frenken, 2006).

Moreover, Figure 3 emphasizes that Generalized Darwinism assumes that evolution takes place in parallel at interconnected nested levels, and that the circular schema adopted from Murmann & Frenken (2006) in the previous section applies to all the levels in the system hierarchy at the same time. Every level has a circle of variation, selection and preservation of its own. Figure 3 highlights that a Darwinian theory that takes the relationship as a unit of analysis (unit of selection) should explain the necessary conditions for cooperation, and it must hence explain the introduction of higher system levels by the favors it gives to its system components.

Essay III assumes that variation can emerge within an individual business relationship; this will lead to discontinuity that may shake up the arrangement. Variation (within a relationship) arises when at some point the relationship’s repertoire of genotypical instructions (based on for example asymmetrically absorbed knowledge) have changed to such a degree that they give rise to new combinations of manifest characteristics. This may be the workings of the many, small adaptations in manifest characteristics and actions of the parties that result from absorbed knowledge and routines. If the selecting environment is in an era of stability itself, this new variant might likely be disfavored by selection and, hence, feed back less benefit, which increases the risk that the relationship be dissolved. Winnowing out unfit whole relationships or unfit relationship characteristics will indirectly result in the fact that routines and capabilities directing the unfit manifestations are more likely to be winnowed out from a population of business relationships. However, if the market system (level above) is also in an era of ferment, a new relationship form might have a better chance of being accepted. The onset of a new dominant blueprint would be seen as the outcome of a process of evolution towards adaptive fit that has been constrained by the available variation at that moment when, as previously noted, both efficiency-enhancing and legitimacy-seeking rationales are at work, and not global optimization.

To conclude this exploration of ways that systems thinking and Darwinism can contribute to business relationship research, it was revealed in Chapter Two that bridging unidirectional camps that have not produced a
coherent evolutionary theory is a warranted issue. As I see it now, the “upward” explanation of the emergence and maintenance of cooperation is one side of the evolutionary story of business relationships and multi-level selection. However, to understand when relationships are able to commandeer energy from the market system, which is a higher level of aggregation, aspects of “downward” influence must also be involved. From the Darwinian stance, neither an explanation of how firms or managers create business relationships, nor an explanation downwardly of contingent fit, is complete. However, it is suspected that the Darwinian variation-selection-retention trinity combines them and come up with a more complete story. In any attempt to address how business relationships evolve, it seems necessary to connect change within the focal system of analysis – i.e. the business relationship – to both processes at a level below (i.e. within each participating firm) and conditions in a level above, the market system, from which the business relationship, as open and adaptive, must commandeer energy and support from in order to endure by manifest fit. Manifest interactions and characteristics of a business relationship are obliged to obey the demands and rules of the market systems, otherwise they are assumed to more likely be punished by the selection mechanism (see also Essay I).

Methodological concerns for Darwinian empirical studies

This section is devoted to the second part of the second research question, concerning dealings with empirical research and the premises for Darwinian research on business relationships. A noteworthy amount of scholarly thoughts and claims in domains external to but related to marketing can contribute to thinking of business relationships as an open, complex system of systems nested in wider market systems – as also implied by the logic of systems thinking and Darwinism. I have discussed in the sections above that the way the industrial change literature model changes in industries from a holistic perspective is fruitful also in illuminating and structuring the explanation of evolution of business relationships. The retention-variation-selection schema in Figure 2 (on page 88) is, I believe, a useful tool to depict larger cycles of evolution. Thinking in terms of the dominant blueprints for business relationships in a particular market system highlights that Darwinism is strictly speaking limited to population thinking.

In empirical research, Darwinist approaches to the business relationship are still an unexplored area. The generalized Darwinian *explanans* gives little guidance method-wise, but systems thinking gives some direction for
empirical research. Being true to its tenets, from a systems thinking viewpoint, the researcher cannot examine isolated unidirectional causations or isolated systems. Indeed, according to systems thinking, it is the right combination for the given situation that should be examined. While it is done from a relative view vis-à-vis alternatives and not an absolute view of fitness, population thinking is accentuated. Variance in fit with the market system would logically be observable if combinations of manifest characteristics (and/or testable manifestations of underlying capabilities) are combined with some market-level condition(s) beyond the control of any particular business relationships. This was done in Essay II. There we used Qualitative Comparison Analysis (QCA) (Fiss, 2007, 2011; Ragin, 1987, 2009; Rihoux & Ragin, 2009) – a hybrid of qualitative and quantitative data analysis for cross-case comparison – which is a close cousin to the configurational approaches made popular by, for example, Miller and Friesen (1982; 1984) and others (Meyer, Tsui, & Hinings, 1993; Short, Payne, & Ketchen, 2008; Vorhies & Morgan, 2003). By exploring a number of explanatory conditions as a configuration, each case as a whole, not reduced to single independent variables, is used as input related to a conditional outcome. According to Marx (2006, 2010), there exists an upper-limit of conditions that can be included in the analysis, normally 3-7 depending on the number of cases, so as not to lose robustness. Essay II used three explanatory conditions and one conditional outcome. In Essay II, we addressed in what configurations of firm and market conditions business relationship emerge. The outcome explored was business mating. Perhaps the greatest advantage to QCA is that it permits systematic cross-case comparison to examine both similarities and differences, and, hence, it makes it possible to investigate empirical equifinality and variety. It is acknowledged that this method is case-oriented. That implies that each individual case (e.g. every firm or every business relationship) is treated as one system, as a complex whole of subsystems and interdependent variables and ties, where every condition must be understood in terms of the unified set that appears as one. Configurations have mostly, however, been used with conditions within a firm or with conditions at the market level. In Essay II, we proved that it was possible to combine and study configurations with both market and firm level conditions. In essence, while fully-fledged use of the Darwinian explanans is still in its infancy in the marketing domain, I believe that the QCA method and perhaps other related set-theoretic methods might be of fruitful use to researchers who dare to conduct empirical studies on the evolution of business relationships in the
Darwinian explanatory paradigm. However, depending on the problem at hand, I suspect that the future production of a more fully-fledged Darwinian evolutionary theory of business relationships can be advanced with a variety of methods. I believe that potential and valid methods in the Darwinist marketing researcher’s toolbox are, for example, (but are not limited to) the modeling of adaptive fit through quantitative population studies of manifest characteristics, QCA to explore patterns of fitness, broader market-level studies to describe the evolution of market standards and distribution of forms and characteristics in the population systems (for example, as in Essay IV), longitudinal accounts of the co-evolution of a single business relationship and a market system, as well as thicker anthropological studies of embedded tacit routines and capabilities in business relationships.

In conclusion, a sound combination of auxiliary theories and valid methods is necessary in order to account for both the micro-processes and the aggregated population effects of evolution. The common denominators are methodologically process-orientation, systems thinking and the Darwinian *explanans*. The focus in a Darwinian theory of business relationships should be not method-wise restrictions, but how accumulation of adaptive fit through time and multiplicity from common starting conditions can be linked in causal terms by the functional mode of explanation. To be true to systems thinking, holism and different environmental conditions, somewhat configurational approaches are preferred, but the full range from qualitative single case studies to broad qualitative configuration studies, I believe, can contribute to the “Second endeavor” of specifying a Darwinian theory of business relationships.
5. Contributions and future research

In this thesis I have explored some of the fundamental theoretical and methodological arguments for why business relationship research should engage with systems thinking and a Darwinian explanatory paradigm. Based on this exploration, this final chapter will deal with contributions and implications, and sketch the contours of a future Darwinian research programme where systems thinking is a fundamental starting point.

Demarcations between various traditions in contemporary research into business relationships were discussed in Chapter Two, reflecting theoretical and methodological difficulties and omitted aspects in conceptualizing the nature of business relationships and how business relationships evolve. To deal with these issues, my thesis is that treating business relationships as Darwinian systems, which accentuates a kinship between Generalized Darwinism and systems thinking, is a way forward. This approach elaborates a treatment of business relationship evolution as an iterative dynamic process, and takes for granted neither the existence of business relationships nor the sequence of developmental stages. In the discussion of how Generalized Darwinian and systems thinking can be used to conceptualize business relationships, and exploring the fruitfulness of this endeavor, the results of the essays and the discussion above support the contention that the Darwinian system approach elaborated does offer an alternative for dealing with questions concerning the nature and evolution of business relationship. It is conceivable, though, that it takes marketing rigor to specify a fully-fledged Darwinian theory of business relationships based on the generic Darwinian explanans. This endeavor of constructing such a theory is far from completed yet. Findings and arguments in the essays elaborate, however, that established marketing orthodoxy from as distant camps as for example resource- and knowledge-based theories and the Markets-as-Networks approach – with only minor adjustments – can be used as building blocks within the Darwinian paradigm in order to add domain-specific rigor to the mission. Complemented also with building blocks from other research disciplines, for example from theories about dominant arrangements and punctuated equilibria in industrial change literature, I have in this thesis advocated that integrating mainstream business relationship conjectures on a foundation of systems thinking using Darwinian mode of explanation is not only feasible, but even positively helpful in dealing with business relationships.
Contributions

Brennan (2006) concludes that an influential school of thought concerning business relationships, the Markets-as-Networks approach, not only lacks a coherent explanation for processual change of emergent inter-firm arrangements, but also overlooks “the importance of evolutionary processes in bringing about change” (Brennan, 2006, p. 836) in these arrangements. Brennan also concludes that the traditional evolutionary economic school of thought in the tradition of Nelson and Winter (1982) has ignored the fact that instructions (routines) directing interactions may be situated, imitated, and innovated at a level higher than the individual firm – i.e. at the level of business relationships. Specifically, the Nelson and Winter tradition takes the firm as its unit of analysis, and not the business relationship. In this thesis, I have taken the business relationship itself as the unit of analysis.

By admiring the tenets of systems thinking and Generalized Darwinism, an alternative paradigm that is fundamentally different in contrast to reductionistic disassembling, Newton-style mechanistic and linear paradigms has been explored. This is, to the best of my knowledge, the first endeavor in the business relationship domain that examines the nature and evolution of emergent marketing systems above that of the firm (in this case business relationships) from an explicitly Darwinian and systems thinking starting point. In this way, this thesis is responding to Brennan’s (2006) and others’ requests. This explorative endeavor has started to set out an evolutionary theory of business relationships that, powered by this explanatory paradigm, Generalized Darwinism, increasingly discussed in, for example, management and organizational science, holds the potential to explain the nature and evolution of business relationships. It is not a theoretical composite that, for illustrative reasons, borrows disconnected concepts from Darwinism or metaphors from biology, but a framework that base its assumption on the view that business relationships literally transmute in ways that to some broader extent have similarities with evolution in other domains.

In contrast to traditional evolutionary models in business relationship research that constitutes evolution according to a predetermined curve with fixed stages, and, hence, does not explain how the business relationship’s characteristics change over time, a theorizing true to the core Darwinian explanans can offers a causal explanation. In essence, the first justifiable contribution of the thesis is the elaborated outline per se for a novel system approach in business relationship research, where mechanisms of variation,
selection and retention, and the dual nature of the central units of evolution, respectively, can be specified in terms of empirically derived concepts from the business-economic literature without lapsing into biological imperialism or denying human intentions. My hope is that the outline for Darwinian systems thinking will help stimulate a debate on Darwinism in marketing in general and business relationship research in particular.

Second, immersed in the details and concerning with “what is evolving”, the literature review revealed difficulties in agreeing on what constitutes business relationships, and the exploration inquired in what way systems thinking paired with the explanatory logic of Generalized Darwinism offers an alternative for dealing with conceptualizing the nature of business relationships. The answer draws on the introduced paradigm, and the contribution to business relationship research is a conceptualization of business relationships as Darwinian systems that integrate (1) theories that focus on the underlying means (e.g. resources and capabilities) that possess potential and instruction for action with (2) theories that focus on the actual manifest actions and observable characteristics. Introduced and explored in this thesis, the conceptualization of a business relationship as a Darwinian system draws on the meaning of a logical distinction between a relationship’s manifested characteristics and the underlying instructions – routines and capabilities – directing the former. This conceptualization stresses the importance of the dyadic nature of business relationships, thus endorsing future research to zoom out and tackle the difficulty of academic myopia. This dyadic nature of business relationships to some extent resembles Penrose’s (1959) idea that the underlying capacities themselves are not units of competition, but that potentials contained in these elements facilitate and constrain the set of opportunities of the systems.

The corollary of the Darwinian systems thinking definition applied to business relationship is that only the real and manifest characteristics (interactions, conducts, governance patterns, and so on) are relevant as units of “selection of” (phenotype). To preserve beneficial characteristics, relational routines and capabilities, seen as units of “selection for” (genotype), are defined strictly as containers of instructions that store the “blueprint” for a relationship’s future characteristics. In addition, by linking theories on dynamic capabilities to the Darwinian framework, my thesis suggests that even capabilities that contain instructions for how business relationships change should be seen as genotypical instructions. A research implication of this two-dimensional Darwinian system conceptualization is that it is methodologically dangerous to take observable acts as indicators for the
underlying capability or routine, as the executed acts might be moderated by situational factors, and instructions directing action might be misread at the moment of enactment.

A third contribution relates to the way a Darwinian systems thinking approach offers an alternative for dealing with theorizing how business relationships arise and transmute. By this thesis I hope to help initiate a discussion about how Darwinian mechanisms might be re-specified from generalized level in order to explain how evolutionary mechanisms cumulatively create and match business relationships (and characteristics of these) to an evolving local market system. The nested system hierarchy, a complete Darwinian explanans and population thinking, I believe are some of the key points here.

The firm–relationship–market nested hierarchy of systems outlined makes explicit the importance of the interconnections between market systems, business relationships, and firms. In doing so, it responds to the difficulty of bridging the methodological debate between managerial freedom and downward market pressure. The thesis demonstrates the importance of configurational system fit, but also the importance of evolvability and of innovations to create variation and gain operational advantages. In order to bridge and integrate standpoints in this methodological debate, merely borrowing principles of how selection mechanisms trim variation in a population, or merely how creativity informs variation, is not enough. In that way, it is possible to say that the Darwinian explanans gives promise of a more complete evolutionary story of business relationships than, say, Alderson (1965) and Eyuboglu & Buja (2007). A Darwinian theory must complement a theory of selection with theories of variation-creation that are needed to explain how the continuous selection is fed with new variants to work on; and with a theory of how selected characteristics are stored and transferred from one period to the next. Without a flow of new variations evolution would stop. Hence, this thesis has shown that to fully account for adaptive fit, accumulation of complexity and variety from the common origins of business relationships, the mechanisms of variation and retention must be explained in tandem with the functional mode of explaining selection that creates the causal link between fitness and the chance to prevail.

Since the Darwinian explanans needs population thinking in addition to systems thinking, this thesis sets out how auxiliary theories that are adapted and re-contextualized from industrial change literature can be connected to the broad Darwinian paradigm in order to further specify the
Darwinian explanation of how business relationships evolve. According to that theory, in times of market stability selection processes often favor a particular arrangement or set of features that, therefore, dominates in the particular industrial sector. Translated into business relationships, it might be assumed that, in a market situation with stable selection criteria, a particular blueprint for a business relationship will hold sway in a particular niche of the market. Although, when market systems are overthrown, selection criteria often change and send shocks downwards in the system hierarchy. How the punctuated equilibrium model (Eldredge & Gould, 1972; Gersick, 1991) underlying the illustrative schema adopted from Murmann and Frenken (2006) can be integrated as an auxiliary piece in the Darwinian marketing jigsaw has been demonstrated in this thesis.

Last, concerning the contributions and implications for empirical research, I believe that a method such as Qualitative Comparison Analysis (QCA) that is true to the systems thinking tenets of holism, equifinality, and interdependency between conditions, is well-aligned with the Darwinian system approach. For empirical research, QCA is proposed in order to move beyond the qualitative or quantitative dilemma into business relationship research. QCA has (as shown in Essay II) the capacity of bridging qualitative and quantitative methods; using familiarity with cases, holism and what is known about each case from qualitative research, and, still, examining decisive between-case patterns systematically. It is conceivable that QCA cannot solve all the Darwinian problems, and in particular how to demonstrate multifinality and specialization empirically from common input conditions is an important question for future research to solve. Possibly one can use the QCA and look at similar business relationship conditions working in different settings (markets) to see which way the environment moderates, different outcomes. From a broader methodological perspective, empirical studies of emergence and survival of business relationships require an inference of the multi-level selection, how advantages of within-relationship cooperation inform success in between-relationship competition that feeds back operational advantages to the firms. Thus, a business relationship cannot be taken for granted, and competitive success must be related to other levels of competition.

The bottom line is that, by advocating Darwinian systems thinking, an impetus for more dynamism and holism in business relationship research has been presented throughout the extended summary and the essays. Perhaps the most fruitful way to look at the Darwinian systems thinking approach is as an emergent framework of fundamental principles and axioms
that can bridge theories. By zooming out from details and re-zooming on the traditional camps we can discover new aspects of business relationships. With the assistance of the generalized Darwinian *explanans*, I believe it is possible to apply a more generic vocabulary to domain-specified phenomena which, in turn, will help us integrate theories of business relationship research.

Overall, these findings and conclusions of the thesis – the extended summary and the essays combined – respond to the request for a “coherent, endogenous theory of change within inter-organizational relationships” (Brennan, 2006, p. 836); more broadly, to the request for more dynamic, process-oriented and contextual approaches to explain and understand socio-economic systems (Breslin, 2008); and, to the justifiable request for more domain-specific work in the endeavor to expand the use of Darwinism (the “Second endeavor”). To conclude, I acknowledge that a Darwinian systems thinking approach, if properly re-specified, provides a rigorous, causal *explanans* – although rather different than in mainstream marketing orthodoxy – that offers a way to explain the nature and the evolution of business relationships by examining their historical successes and failures in interactions with the market systems they inhabit.

**Steps forward in a Darwinian research programme**

When changes in the business environment accelerate, embracing Generalized Darwinism does not imply theoretical and methodological myopia. Nor does it rule out conscious choices by calculating managers trying their best. Unlike dinosaurs and other extinct species in nature, that had no conscious way to adapt to local contextual flux, many executives, firms and business relationships, respectively at each level, dispose evolvability from dynamic capabilities. But these dispositive instructions to take thoughtful actions have evolved and are in Darwinism seen as assets that direct acts and features. Nevertheless, the possible extinction of the inflexible or unbalanced business relationship and characteristics of this will, if it happens, take place despite internal goal directedness. Further efforts to understand these dynamics are required. I admit that the explicit use of a Darwinian way of theorizing has merely begun in marketing research, but to contribute complementary answers to the escalating call for dynamism, process-orientation and contextual approaches this alternative explanatory paradigm can fill a need.

It has been said above in this chapter that some warranted accomplishments have been achieved, but much more remains to be done. For this
reason, contours of a future Darwinian research programme are sketched below by highlighting implications for research, and the necessary steps to take as regards future questions and challenges.

1. **Define proper unit of evolution/selection**: One fundamental issue to engage with is the proper unit of “selection of” for the research problem(s) at hand. In the population of business relationships, variation exists on at least two levels, of two sets. It is an open question whether the set selection works on the actual business relationships (as indivisible units of selection) or the characteristics in the population. In other words, must the winnowing-out process be understood as complete business relationships are dissolved, or can it be understood as adverse actions or a sub-part of the multivariate connectors are winnowed out? As indicated, I consider the question open. For example, business relationships directed by some kind of relational-level evolvability may be assumed to reconsider actions, and try to suppress manifestations of characteristics that are perceived as an obstacle to the relationship before the whole relationship is dissolved. Moreover, as I assess the challenges of a Darwinian programme for business relationship research, a key is understanding the retention mechanism in more detail. Future research, I believe, has to explore the business relationship’s (not the firm’s) genotype or memory (the unit of “selection for”), where instructions directing characteristics and actions are preserved in order to retain a positive connection between the ability to perform acts beneficial to the relationship and its parts, and the probability of repeating those actions. In addition to specifying details about the preservation mechanisms, variation mechanisms need to be further fine-graded; e.g. how the composition of instructions are changed via new and recombined routines and capabilities.

2. **Integrate auxiliary domain-specific theories**: Perhaps the most important step in the endeavor from generalized to domain-specified Darwinism is to base a Darwinian re-specification of the business relationship research on domain-specific concepts and findings. I share the view that squeezing biological details from the natural realm into the marketing domain when they are not properly tested in this domain leads us astray. There seems to be broad agreement amongst Darwinists that the details of evolution are very different in different
realms. There are no genes in business relationships, but constituents that can fill the role equivalent to genes in a generalized sense. I am advocating that details of evolution of business relationships must be defined in terms of itself and not by details from any other field. I do not advocate that biology should replace what is already documented about relationships. Rather, I support the idea that the Darwinian systems thinking view is an alternative way of organizing and bringing meaning to empirical findings. Even though Darwinism might outcompete the mainstream paradigms to some extent, which I do not think will happen, I still consider that much of the mainstream orthodoxies in business relationships research will remain central, although slightly re-interpreted to fit the Darwinian logic. When the fundamental concepts and mechanisms are further investigated and specified, and Generalized Darwinism is more integrated into the business-to-business marketing field, I believe an evolutionary theory of business relationships can provide a different – and probably more promising – basis for further theorizing about how relationship features are specialized from a common origin, adaptive fit, and accumulation of complexity, compared to explanations based on the more static approach or a reductionist and/or mechanistic paradigm. Anyone who wants to get involved in the project of constructing a Darwinian theory in this field must note that concepts such as adaptation, selection and causality have special meaning in Darwinism, so it is important to know in which explanatory paradigm authors are located. To help sort this out, the systems thinking tenets and the notions of Darwinian commitments listed in Chapter Three can help out misunderstandings. Moreover, it must be stressed that the Darwinian sense of adaptation as a bi-product of a trimmed set implies not only systems thinking, but population thinking and multi-level thinking too. This is fundamentally different from adaptation as a deed performed by the single entity struggling to thrive. If one is not careful enough, I think there is a risk that the similarities in words can lead to misunderstandings and problems in reconciling auxiliary theories on the Darwinian framework. After all, there is potential to integrate many empirical findings in a Darwinian framework, but much caution is required.

3. Integrate with theories about other system levels: After a proper Darwinian re-conceptualization of business relationships, it should
be time to integrate with other levels in the firm-relationship-market
hierarchy. A Darwinian systems thinking view offers, I believe, the
possibility of converging terminology within a shared framework. By
relating to other levels and theories external to marketing upon the
shared *explanans* there are other, but conceivably less noticeable, re-
search traditions that based on systems thinking can be linked and
used as pieces in the Darwinian theoretical jigsaw. It includes, for
example, systemic and configurational modeling of macro-markets
(Layton, 2007), and community-market co-evolution (Ruef, 2000,
2004). Even parts of the service marketing stream of research has re-
cently re-directed towards an approach more influenced by systems
thinking (Vargo & Lusch, 2011). Vargo and Lusch (2011) claim
that their generic actor-to-actor marketing model based on “service
dominant logic” offers a general theory of marketing. Suppose they
are correct, even though the approach must be charged with expla-
natory power. To paraphrase a quote from their perhaps most in-
fluential article it can be noted that “business relationships are not;
they become”\(^\text{16}\). Darwinian logic helps to explain how.

4. **Develop methods for empirical research:** Parallel with the integra-
tion of theoretical findings and conceptual modeling, it is a nece-
sary step to fine-tune and test proper methods for empirical re-
search. A sound combination of theory and method is necessary to
account for evolution at every level. But important questions that
are still is to be solved are, for example, how we can handle multi-
finality – variation from a common origin – properly in studies, and
how we can study the spread and evolution of unobservable rou-
tines. In Chapter Four it was proposed that QCA, quantitative
population-level studies of adaptive fit of some particular characte-
ristics of business relationships (for example tracking the spread of a
special kind of governance), longitudinal historical deep case a-
counts of business relationships and market system co-evolution,
and even deeper anthropological research of unconscious routines
and habits can all be valid tools in the production of knowledge re-
garding the evolution of business relationships.

\(^{16}\) “Resources are not: they become” (Vargo & Lusch, 2004, p. 2)
5. **Add empirical findings**: A future research programme needs to further examine by the use of empirical research how firm performance is linked to relationship evolution in various contexts and industries. However, the step from conceptual theorizing to overcoming the difficulties to empirically embark on evolutionary-Darwinian research will not, I assume, be easy. Today there exist no studies as far as I know that have used Generalized Darwinism in marketing studies. Research into the evolution of business relationships in particular and socio-economic evolution in general is in its infancy compared to equivalent biological evolution research. In the evolution of business relationships, the detailed account of the foremost transmutations needs to be further elaborated and examined by the use of empirical data. Hence, a Darwinian research programme needs in the future to test whether empirical material supports the auxiliary theories and models and also to judge in more detail when and how the Darwinian system approach is fruitful in providing new insights and implications for research, teaching and/or management. Concerning the major shifts and transition points in an evolutionary process, a Darwinian programme must elaborate from empirical data the tension between selective pressures from the local environment opposed to internal variation creation. Maybe factors such as the age and intensity of business relationships make the relationship react differently to contextual flux and changed external conditions? Are mature business relationships more stable than new ones? Contain mature ones less evolvability than new ones? And what about geographical differences and geographical distances? Do Swedish and Australian business relationships evolve along similar trajectories, or to what degree do differences in geographical institutions in the local environments make them evolve unique characteristics? To answer those and similar questions, it seems necessary to understand the demands and flux of the local environments and specify a fine-grained account of both the absorption or creation of instructions (the genotype) that direct features and procedures in business relationships, and the preservation of these instructions from time t-1 to time t and onwards. For example, Darwinian studies might be about finding and uncovering the connection between cognitive mechanisms and utilization of conducts from an assortment of dispositive conducts; or the link between firm-level struggles and relationship-level variation.
6. **Extract implications:** The ultimate effort is to proceed to inform practice and translate empirical findings into implications for managers, teachers, stakeholders and other peers. The limitation of the *explanans* still makes it unclear how a Darwinian programme, and Darwinian theories, can explain the evolution of a specific business relationship. As regards the population thinking mode, Darwinism usually explains how the composition of instructions (for manifested characteristics) is transmuted in the course of time\(^\text{17}\). This is a remaining challenge in business relationship research, if one wants to draw direct managerial implications out of this positive mode of research. So far, to understand competition and conducts that provide benefits to a particular relation compared to competing varieties, the Darwinian programme must also address the distribution of instructions within a set of similar but not identical business relationships.

**Final words**

This thesis has come to the conclusion that an emergent theoretical composite – new to marketing – that integrates systems thinking, Generalized Darwinism and established business relationship conjectures, has a potential in supporting marketing research an explanatory theory to understand the composition of today’s business relationships by studying the records of their historical successes and faults (what has been preserved by selection) and their evolutionary innovations (how variation is created). But more work, both conceptual and methodological remains to be done. It takes the general tenents to be properly specified and adapted to the marketing domain.

Jacobides (2006, p. 151) expresses the rationale for an evolutionary position as follows: “being evolutionary is not an article of faith; it is not the a priori preference in one mode of explanation over another but rather an effort to understand what cannot be properly accounted for by existing toolkits and methods”. Darwinism is also originally an endeavor to comprehend empirical findings that cannot properly be accounted for by existing theories. During and after his 1831-1836 voyages with the *Beagle*, Charles Darwin noticed variety in species and found historical records of extinct varieties that make up the common origin of a multitude of recent

\(^{17}\) Compare with biological Darwinism, which explains the evolution of species and genes, and not change in individuals. In biology, individuals are carriers that transport the instructions from time t-1 to time t, from one generation to the next.
species. While he searched for an explanation for the multiplicity of species, Darwin, according to his autobiography, happened to read Thomas Malthus (1798) on population dynamics and how scarce resources hold back populations from growing uncontrollably (Darwin, 1958 [1876]). Then, with “the single best idea that anyone has ever had” (Dennett, 1995, p. 21), Darwin combined his inspiration from Malthusian population thinking with a functional explanation linking the possession of a beneficial character feature to a slightly greater chance of survival compared to the entities in a population that do not possess it. Well over 150 years after Darwin’s publication of “The Origin of Species” (Darwin, 1859), this thesis has proposed a way that Darwinian logic in its generalized form can also be fruitful in business relationship research, expanding the use of the core meaning of Darwinism, that is a rigorous causal algorithm to explain today’s forms, features and characteristics by means of their historical records of selection and innovation/variation. It is thus within reach that Darwinian systems thinking can frame a view that links up several camps in mainstream business relationship literature. Methodologically, with systems thinking, it is shown that configuration modeling that suits systems thinking can steer us away from assumptions about unidirectional causality and towards multidirectional causality.

To balance the promising aspects of a Darwinian system approach, its scope conditions deserve to be emphasized once again. Generalized Darwinism is, despite the name, not a theory that can explain or predict all sorts of dynamic or evolutionary processes with a single theory. To recapitulate, the essential premises of any Darwinian-system theory that is laid out must be aligned with the essential commitments, explananda and explanans of Generalized Darwinism. These qualifications and the fact that it is only applicable to the evolution of open, complex systems that appear in populations bound the scope conditions.

An implication for research is that the emergent theoretical composite is likely to be most germane for researchers who spotlight retrospective “how it came to this” questions. For them, the Darwinian explanans may help them to overcome previously unsolved aspects. Explaining variety from common origin, adaptive fit, and the accumulation of emergent levels and multiplicity up to this point in time assumes that the researcher examines historical records, major transitions in the past and contextual flux in the local environments that might have mediated change. For example, a Darwinist could argue, by referring to historical records, that the advent of a particular feature was a necessity for why a certain form of business rela-
tionships spread or seized a dominant position in a particular market system. On the contrary, for prospective predictions, I assume the Darwinian models may be modestly useful at best. Embracing emergent properties and evolutionary processes at multiple nested levels, the future seems too chaotic and dependent upon a myriad of interrelated conditions, too many to control to predict the future from a Darwinian point of view.

Moreover, the emergent theoretical composite explored in this thesis is also likely to be most germane for the researcher who spotlights emergence and transmutation at an aggregated market-wide level. Population thinking is always a prerequisite for Darwinian-style functional explanations to work. “Fit” or “unfit” business relationship is judged in relation to the rest of the population, because fit has a relative rather than absolute connotation in Darwinism. As reasoned in Essay III, we can only from a Darwinian horizon claim that less well-aligned business relationships run a higher risk of closure than better aligned alternatives; as selection trims the variation in the set. It accentuates the fact that Darwinists speak about evolution at the aggregate level, and that the chance of a particular business relationship to feed back positively can possibly be estimated only in terms of probability. In contrast, for research that sets out to explain the detailed history of an individual business relationship, a Darwinian explanation is not helpful without proper knowledge of the alternatives and the local environment at the moment of each round of variation, selection and retention. Many micro-events (intended or unintended), which can be just as crucial to the individual business relationship, but nevertheless cannot be explained by a Darwinian selection theory, are at the aggregate population level assumed to be randomly distributed in the population. A Darwinian explanation of selection assumes that there are both random (events that require different explanatory models) and systematic selection based on fitness in a given population. So, by assuming that the random events are reasonably evenly distributed, then the non-random selective preservation will give the average relationship a different composition over time. Imagine that all characteristics and underlying tacit routines of all business relationships in a specific market sector are known. From a Darwinian point of view, we will still only know that, on average, the most beneficial relationships have a greater chance of prevailing.

Furthermore, a stance on systems thinking probably makes empirical research more complex and complicated, as the researcher often has to keep track of interconnected mechanisms, multivariate dependency, non-linear algorithms, and so on, rather than the linear one-way cause-and-effect
story. Omitting assumptions of full rationality and instead believing that every unit has underlying (genotypical) routines and capabilities that direct actions, makes the empirical endeavors even harder. But I assume a researcher cannot ignore interesting problems because they are somehow harder to solve. I believe a key issue is framing the problem. Before it is possible to fully evaluate the fruitfulness of regarding business relationships as Darwinian systems or the fruitfulness of specifying a theoretical composite based on Generalized Darwinism in the field of marketing, both more conceptual work and empirical work is needed.

Overall, even a marketing-specific Darwinian explanation is incapable of explaining – or at least unlikely to be better than many other existent marketing theories and models in explaining – the change dynamics within a particular business relationship in isolation or of predicting the future. However, I have in this thesis explored and found that an emergent framework based on Darwinian systems thinking is probably fruitful in business relationship research when research problems come under the Darwinian *explananda*. Within its bounded scope, I believe the Darwinian explanatory paradigm can support new insights to marketing in general and business relationship research in particular. So far, Darwinism may have been generalized, but marketing theory needs marketing rigor. More detailed marketing-specific conceptualizations and empirical findings are required as auxiliaries to be linked into the Darwinian paradigm. Most of this work lies ahead in the “Second endeavor”. I hope this endeavor continues. It seems unwise not to pursue “the single best idea that anyone has ever had”.

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Appendix A. Preface to the essays

The thesis includes four autonomous essays, and here follows a preface to each of them summarizing their scope and results. Essay I is co-written with Associate Professor Tobias Johansson; Essay II is co-written with fellow doctoral candidate Gabriel Linton, and Essay III is co-written with Associate Professor Jim Andersén (at that time Assistant Professor), while Essay IV is my own product.

Essay I

At the start of the first essay, published in *Industrial Marketing Management* and written for an industrial marketing readership, it is stated that evolutionary theory and generalizations of Charles Darwin’s famous idea are advancing outside the domain of biology. However, later in the essay it is shown that, in the theorizing about business relationships as the unit of analysis, these advances are noticeable mostly by an interest in using biological analogies, being inspired by biology, or by using isolated aspects (for example, only the selection theory) of the Darwinian framework as an alternative to mainstream explanations, and not yet in the form of a coherent Darwinian framework adapted for the purpose. Works by Eyuboglu and Buja (2007); Wilkinson et al. (2005); and Palmer (2000) are reviewed in order to illustrate the “Darwinian” ways in which business relationships have recently been studied in marketing, and to introduce relevant gaps in their theorizing. Instead of trying to translate models and theory directly from traditional biological applications, we argue for the use of a generalized and abstracted Darwinian framework detached from any specific areas of application. Referred to as “Generalized Darwinism”, this overriding framework is the same as the framework that was presented in the previous chapter of this extended summary. Essay I addresses the overriding framework of Generalized Darwinism as a response to the use of biology or disconnected fragments of Darwinism in marketing.

In the essay it is acknowledged that Generalized Darwinism displays the framework into which theoretical specification for business relationships, as well as empirical findings, must be placed. The essay outlines how the philosophical principles and postulations that the generalization of Darwinism embraces can be combined with auxiliary marketing and management concepts in order to formulate a Darwinian-evolutionary theory that has the explanatory power to explain adaptive fit and the accumulation of complexity of business relationships. In the essay, suggestions are put forward on how central mechanisms in an evolutionary theory in business
marketing research could be warranted and conceptualized for marketing rigor. Thereby, in essence, Essay I states that the time has come to move beyond flirting with some Darwinian ideas towards explicitly exploring the promise – but also heeding the premises – of a fuller Darwinian framework in research, aiming to explain the evolution of business relationships. A Darwinian specification for business relationship objectives share some basic ontological fundaments with biology, but is not based on biological metaphors or squeezed into biological theory.

Concerning the increased borrowing in business relationship research of disconnected fragments of Darwinism, Essay I draws on Eyuboglu and Buja (2007) to address the idea that a functional mode of explanation, a selection approach, can be as good an alternative as mainstream mechanistic cause-and-effect logic inspired by Isaac Newton. Nevertheless, a critical assessment in the first essay is to show that to merely include selection, as Eyuboglu and Buja (2007) do, is insufficient for the theory to qualify as Darwinian. Darwinism implies more than that; it is a commitment to a more profound ontology, and to particular *explananda* and *explanans*. In other words, in addition to selection, a Darwinian explanation must also incorporate and specify the mechanisms of variation and preservation/retention. It is possible that Eyuboglu and Buja (2007) were aware of that, because they called their theory “Quasi-Darwinian”, leaving aside everything but the selection aspect. This is a gap addressed in the later part of Essay I. For business relationships, the essay gives examples of how adaptive success is preserved from time t-1 to time t, and how new variation is created. Addressing the feasible units of “selection for”, we follow the earlier proposal from Nelson and Winter (1982) that routines contain instructions for business relationships. Routines that should be a familiar concept to a marketing and management readership can function as dispositions that enable and constrain potentially interactions, and that directs how business relationships are constituted. Moreover, Essay I proposes that routines function also as retainers of important adaptive information that can be preserved. All in all, the first essay maps out how a fuller Darwinian theory might be structured in order to incorporate dynamic and contextual approaches; and multi-period explanations formed by variation, selection, and retention.

**Essay II**

The second essay explores favorable conditions for business mating using a configurative approach and Qualitative Comparison Analysis (QCA) for
between-case pattern search. It tackles, therefore, a gap in the business relationship literature addressed in Chapter Two concerning the inability to determine when and how relationships arise, although it is important to note that this study is not meant to fill the entire gap in multiple aspects. Rather, the more specific objective is to investigate whether particular combinations of invention features, management styles and market situations may enhance the chances for invention-based startups to succeed in mating with a marketing partner. The essay theorizes that invention-based startup firms have the greatest chance to be selected by incumbent business partner (e.g. a distributor or retailer) when these three conditions match.

Results from fieldwork in 16 cases/startups and between-cases comparison analysis largely confirm prior speculations, and demonstrate two different configurations, both leading to a high chance of these startup firms, succeeding in business mating:

1. The presence of entrepreneurial-oriented (EO) executives and/or a radical invention (RI) to commercialize facilitate business mating, but EO and RI are only sufficient when, for the particular product category, there is no current dominant product design in the market.

2. In contrast, when there is a current dominant design present in the market, conservative management style and an incremental invention constitutes a sufficient configuration facilitating business mating.

These two equifinal ways to business mating both express that a selection mechanism favors startups in a population of relationship candidates that are believed to be beneficial for the incumbent middlemen or distributor in a particular market situation. In sum, results support a configurative grab, stating that startups based in an invention have the greatest chance to be selected by an incumbent business partner when the internal characteristics (EO and RI) of focal startup firms are well-aligned with the situation in the local market system.

**Essay III**

While Essay II focuses on favorable conditions for businesses to form a relationship, the third essay concerns evolution of the business relationship after it has been entered. This article, published in *Management Decision,*
was written for a broad-spectrum readership interested in management thought. On the underlying foundation of the Generalized Darwinian framework (which is only implicitly discussed in the published version), Essay III combines auxiliary empirically entrenched concepts and finding on business relationships and managerial cognition from marketing and management literature in order to put forward four propositions. These propositions respond to how drivers to the interaction of collaborating partners can be conceptualized and linked to relationship durability.

While absorbing knowledge from partner firms since the 1990s has been identified as a key feature of business relationships in leading journals (Levinthal, 1991; Zahra & George, 2002), the evolutionary consequences of an asymmetrically distributed manifestation (use) of absorptive capacity have hitherto been neglected or unanswered. In plain English, what happens in the long run to our business relationship if your firm applies cognitive attention and greater capacity to learning from my firm than my firm spends in learning from your firm? Specific emphasis is hence paid to how two warranted characteristics of business relationships are transmuted in the course of time, namely conduct and dependency.

To be able to explain the transmutations, the essay does also discuss the substrate of absorptive capacity, and re-defines it to comply with the fundamental tenets of a Darwinian explanation. In older conceptions of absorptive capacity (Levinthal, 1991; Zahra & George, 2002), there is no division between the dispositive potential to absorb knowledge (instructions that direct, and enable, absorption) and the actual commandeering of knowledge (the outcome). This is addressed with the re-definition that Essay III offers: following the Darwinian stance, we distinguish the disposed capability, or “unit of selection for”, from the realized absorbing of knowledge from a partner, or “unit of selection of”, in order to establish a positive connection between the ability to commandeer knowledge and new skills that is positively received as giving fitness benefits to the partner, and the probability of repeating those actions in the future.

As a result, it is argued that the dynamics of the governance pattern of a business relationship (dependency and conducts; bilateral and unilateral) is substantially influenced by the realization of absorptive capacity in comparison to the relationship counterpart. If we are willing to accept some naive simplifications, it can, in plain English, be formulated like this: If your firm for quite some time is constantly investing a curiosity in, and a capacity and interest to absorb large parts of what my firm knows, while my firm makes substantially less efforts to absorb knowledge from your
firm, then your firm’s space to exercise power and opportunism may increase as dependency on my firm decreases. Essay III illustrates how a motivated partner who gives more attention to the relationship is more likely to absorb more knowledge than its counterpart, which can threaten the durability of a relationship.

Essay III concludes with the possibility that the degree of cognitive attention directed towards a particular business relationship is positively related to the relation-specific realized absorptive capacity; and that partner’s relative scope of resource absorption could alter experienced dependency, the possibility for unilateral actions, and the impact of bilateral norms, and that this process of variation might both change the distribution of co-created and shared benefits, and ultimately worsen the relationship’s chances for survival.

**Essay IV**

Lastly, in the fourth essay, the evolution of the Swedish music industry’s market channels is depicted. In this essay, I have the unit of analysis on a level above relationships, namely on the structural design of the market channels, where market channels may be seen as chains of business relationships linking firms together. It is initially argued that scholars generously defined as evolutionists, some of which are Darwinists, in diverse academic domains have in common the fact that they all try, in broad terms, to explain accumulation of designs, but in different systems, from germs to large cultural systems. A number of similarities that connect dominant design modeling to the generalized Darwinian framework are also exposed (e.g., commitment to population thinking and multi-level systems thinking). I thereafter assume that the market channel system itself is a unit of analysis that can embody dominant designs at one or at multiple levels; in a way similar to dominant design of the human eye, of food chains in nature and any other open, adaptive and complex system subject to evolutionary processes.

The general objective of Essay IV is to illustrate applicability of a Darwinian approach in a market context, and to show the need for more contextual and process-oriented approaches. Incorporating context is a necessity in order to explain how business relationships and firms as subsystems and sub-subsystems, respectively, in a higher order system are dependent on, and to some extent controlled, by the fate of the wider system they inhabit. This aim is met by an attempt to present a Darwinian explanation for the recent comprising flux and dynamics (in the 1990-2010 era) of the
market channels in the Swedish music industry. This attempt applies a dominant design model of explanation (Abernathy & Utterback, 1978; Anderson & Tushman, 1990; Murmann & Frenken, 2006). Hence, Essay IV comprises both applications of Darwinian thinking in empirical research and an endeavor to extend the use of dominant design thinking beyond its traditional domain, which is technological renewal research.

Concerning the evolutionary process within the Swedish music industry’s market channels, the era of ferment the music industry is persisting now after the long previous era of stability has several nested causes and implications. It is quite clear that this was affected by a changed environment due to new technology and infrastructure that enabled digitalization, computerization and internetization in the Swedish context. This case is thus fundamentally one of dismantled dominant designs, first due to a changed environment and then to the emergence of design variation that successfully competed to dismantle the traditional dominant design. The general pattern readily fits the basic evolutionary story - circles of variation, selection and retention on multiple but nested system levels. Hence, the empirical data case from the music industry outlines that the use of a dominant design model, previously employed to explain the evolution of technologies, can be expanded, as it is logically connected with market channel evolution and the mechanisms of the Darwinian framework.

An organizational dominant design for market channels determines a set of positions or roles that a firm can have in the channel, and design characteristics for business relationships therein. Stepwise dismantling of the previous dominant designs in the period after Napster entered the scene in 1999 resulted in some of the entry barriers being lowered, and the ideas of what each party in the market channel system was supposed to do in the whole market channel system were challenged. In this subsequent more dynamic environment, firms had to reconsider their roles and identities and what kinds of relationship arrangements that gave them benefits (new selection pressure). The rise of a new era of ferment with competing design propositions led to an increase in entrepreneurial activity that infused design variation when new entities with new designs emerged to compete with those that were already familiar.

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18 Essay published in 2011
Appendix B. The empirical studies

Whereas two essays (I and III) are devoted purely to conceptualization and modeling endeavors drawing on previous research, the other two essays (II and IV) are based on empirical ventures. The manuscript denoted Essay II intends to answer an inquiry about the advent of new manufacturer-distributor business relationships, while Essay IV focuses on a question about the evolution of the larger market system involving dominant design theories. The present appendix portrays the ventures behind these two empirical datasets; it provides a report on the design of the studies, notes on data collection and analytical procedures, and some basic dataset records. Complementary descriptions of the applied methods are reported in each original essay.

The configurative study on business mating (for Essay II)

In this project, fellow doctoral student Gabriel Linton and I ran a comparative case study of 16 cases, and studied in what combinations of internal and external conditions these startup firms based on inventions were most likely to erect a new manufacturer-middlemen relationship. This study tackled the advent of intra-channel business relationships with a configurational method, Qualitative Comparison Analysis, QCA (Fiss, 2007; Ragin, 2000), and identified equifinal solutions leading to high chances of forming business relationships. After attending an international conference (Global Business Conference, Šibenik, Croatia) in September 2011 where we presented a paper describing the theoretical construct conceptualized from the extant literature, the data collection and analytical procedure was conducted during the fall semester of 2011 and spring semester of 2012. The study was based on the fieldwork of 16 Swedish cases in the sport, games and amusement markets, including multiple data sources.

One challenge in dealing with empirical cases is that clinical laboratory-like research is not possible in business and other social sciences. This makes it difficult, maybe impossible, to disaggregate complex cases into isolated independent and dependent variables in order to make Newtonian-style cause-effect claims. Instead, to capture the intrinsically complex nature of each case, while still making some efforts at advancing findings beyond the single case, the idea in this study was to compare combinations of conditions in order to find cases that stand out (Eisenhardt, 1989, 2007) – i.e. those cases that possess configurations that informed business mating.

The project started with an extant literature review that exposed the fact that contemporary literature on startups, entrepreneurship, and marketing
strategy often addressed links to firm performance and thriving from management style (in terms of executives entrepreneurial orientation), the radicalness of inventions, and the circumstances in the market or product class that the firm wants to compete in. Following that literature review, the study then focused on finding a set of cases/startups which were similar in other aspects but represented different combinations of the focal conditions; and subsequently on fieldwork/data collection for each case that covers these proposed markers. Finally, case data where calibrated and analyzed according to the analytical procedure of QCA.

Data collection and basic description of the data set

The process of collecting data began in the fall of 2011. The theorized model we used in this project calls for studying startups based on an invention. To be able to find “positive cases”, startups that had formed business relationships (i.e. had mated), we started by accessing the national Swedish patent database. By only including inventions that have been awarded patent protection we ensured that all cases (positive and negative) included in this study encompassed startups focusing on inventions that meet minimum standards of originality. In order to limit the variation between cases, a cohort sample was selected to enable a comparison of startups that have been facing at least some degrees of similarities in non-included conditions. The patent class “Sports, games and amusements” (class A63 in the International Patent Classification, IPC) for the period 2005 until 2008 was selected. We choose 2005 to 2008 because it was sufficiently distant from our data collection period (from November 2011 to March 2012) to allow the startup to form a business relationship, and yet recent enough that the respondents would be able to recall the events accurately (Huber & Power, 1985). Patent class A63, for example, involves apparatus for physical training and other training equipment including skis and snowboards, as well as equipment for ball games and so on. In our sample we only included patents given to individuals not having an established firm in the sector, or in related industries – i.e. we excluded patents given to incumbent firms with a present network in the actual industry of already-established dealer relationships, since they are not novel firms. Moreover, we ruled out patents belonging to individuals that already run a reputed firm with present dealer relationships in the sector or in related industries, because we assumed this to be such a decisive advantage in mating that it can overshadow the sets of conditions we want to investigate. In addition, we disqualified from our sample patents that never give rise to a startup firm. By studying invention-
centric startups in a particular national environment (Sweden) and a specific product/patent class, we tried to limit the number of contextual conditions that may otherwise influence outcome. For example, cross-national differences, sector differences and differences between time epochs are avoided.

In the patent database, patentees’ addresses were available from the time when the patent was filed. First we searched for patentees’ current contact information, through white pages, census data and other search engines. 22 invention-based startups (cases) with accessible informants were identified. Firms identified were approached by telephone and email, where the aim of the project was summarized and with an appeal to contribute to the study. 16 out of the 22 identified startups agreed to participate in the study. Among these 16 cases, interviews were conducted with executive by telephone using for the first part of the interview open semi-structured questions, and for the second part a structured questionnaire. While the first part concerned the startup process, the invention, the market situation, and competition in the market, that later part concerned the executives’ degree of entrepreneurial orientation, which was measured with a widely validated construct that is the most frequently employed reflective EO measurement in use (Covin & Wales, 2011). Some respondents preferred to complete the questionnaire online, whereas a majority let the interviewer receive oral answers to all questions. In both cases the respondents were given the same detailed instructions (oral or/and in text). The telephone interviews varied in length from 15 minutes for the shortest, and up to one hour in duration for the longest. All interviews were conducted in Swedish.

The informants approached had all experienced a journey from an invention, through the inception of a startup and mating attempts, to either establishment of a new relationship with a distributor/licensee or the decay of the startup project. Nevertheless, it can be questioned how knowledgeable informants were about the competing products in the market, market shares, and so on. Fortunately, this was not a major problem that could affect the results, because market shares and competitors could be verified through secondary data (archive data, patent documentation, media, reports etc.), and the radicalness of the inventions (which encompasses a dimension of uniqueness versus pre-existent alternatives) was measured using knowledgeable expert scholars who answered questionnaires in order to benchmark the addressed invention for each case.

The received data set contains 4 manufacturers of equipment and supplies for winter sport (25%), 4 manufacturers of golf and ball game prod-
ucts/devices (25%), 3 providers of gear for body care (i.e. for stretching and fitness training, and related) (19%), 3 manufacturers of products for leisure and games (19%), 1 producer of protection devices (6%) and 1 provider of graphics for sports broadcasts (6%). With respect to anticipated end-purchasers, 8 (50%) approaches were made directly to athletes, coaches and other individuals, and 3 (19%) approaches primarily to clubs, sport and games facilities (e.g. gyms), federations and other collective buyers. The remaining five inventions/products were supposed to be used primarily by one individual at a time but could be bought either by the individual or by collective group (e.g. equipment that could either be in private ownership or used in public sport facilities).

Concerning the executives in the data set, 11 (69%) applied for a patent as individuals before the establishment of a firm, whereas the other 5 (31%) set up a firm to apply for a patent.

Analytical method
Like other configurative (or “set-theoretic”) methods, the Qualitative Comparison Analysis (QCA) highlights the idea that it is may not be the isolated variable, but rather the unique combinations of present and non-present conditions that give cases their outcome (Ragin, 2000). Hence, QCA is claimed to be appropriate for examining how a combination of multiple factors informs the outcomes (Fiss, 2011), and appropriate for formal between-case analysis which involves both qualitative and quantitative data/evidence (Ragin, 1987, 2000). In contrast to traditional regression and correlation models, QCA uses Boolean algebra, and, hence, better allows for the multifaceted complexity of case study and causal complexity, and for the opportunity of finding equifinal solutions. QCA indicate one of two causal relations, sufficiency and necessity, when a pattern among multiple causal conditions is linked to a certain outcome. If sufficiency is found, the causal condition/configuration is a subset of the outcome (i.e. the solution leads to the outcome, but so also do other solutions). On the other hand, if necessity is revealed, the outcome is a subset of the causal condition/configuration (i.e. the condition or combination must be present, but it is not enough for the outcome to occur).

The combination of contextualized within-case knowledge and formal systematic comparison (as in quantitative research) is often claimed to be the main advantages of QCA (Fiss, 2007). In this project/study, we first used traditional case methods for within-case content analysis, and then used the evidences/data of each case to compare across cases in search of
combinations/configurations that inform business mating. For the identification of solution terms, we were using the software fs/QCA 2.5. Despite being of novel use in startup and business mating studies, QCA has been used in multiple studies in various domains, for example in crime science (Miethe & Drass, 1999), in business studies of export performance (Schneider, Schulze-Bentrop, & Paunescu, 2010) and in studies of multinational corporations (Chrilly, 2011) to name a few. In organizational, management and marketing research, QCA using fuzzy sets has in recent years been advocated as particularly useful in studies that take a configuration stance (Grandori & Furnari, 2008; Greckhamer, Misangyi, Elms, & Lacey, 2008; Ragin & Fiss, 2008).

QCA can handle large samples, but also smaller sample sizes that conventional regression analysis would not be able to handle (Fiss, 2007; Marx, 2006, 2010; Ragin, 2009). In contrast to un-systematic case comparisons, one advantage is that QCA “allows systematic cross-case comparisons, while at the same time giving justice to within-case complexity” (Rihoux & Ragin, 2009, p. xviii). The main objective in any QCA study is to find out what conditions and combinations of multiple conditions, are sufficient and/or necessary for a particular conditional outcome (Fiss, 2007).

Even though a qualitative case comparison is often primarily presented as a particularly useful tool for revealing configurative causality, developing new theories and uncovering complex configurative patterns rather than testing established theories (Fiss, 2009b), the number of cases in QCA is important for how robust and trustworthy the claims will be (Marx, 2006). The lowest number of cases allowing for trustfulness and non-random/solution terms in QCA depends on the number of conditions in the configurations. In this project we had three contributing conditions. For three contributing conditions it is typically recommended to have a minimum of 10 cases (Marx, 2006). We had 16 cases, which warrant credibility according to methodological experiments (Marx, 2006)\(^\text{19}\). If the

\(^{19}\) Marx (2006) shows from a methodological experiment that QCA is able to distinguish representativeness from random data when the proportion of conditions on cases falls below a certain threshold. For models like ours that encompass four conditions (three contributing and one dependent condition), Marx (2006) implies that 10 or more cases will almost guarantee contradictions in completely randomized data, and when this is extended to 15 cases, 100% of Marx’s extent tests revealed contradictions since data were merely due to randomness. In other words, if the number of cases exceeds 15, the number of contributing conditions are three (or fewer), and the consistencies are distinguished, it indicates representativeness.
number of cases is below the recommended threshold, the study faces a risk of presenting a condition as sufficient and/or necessary for an outcome only because the researchers by pure chance did not have fortunate cases without the condition.

Once the data are collected, they can either be transformed into crisp sets or fuzzy sets. In crisp sets, the measures are binary, either full membership or no membership. This means that the number of possible configurations equals the number of prototypical configurations. In fuzzy sets, however, degrees of partial membership can be achieved (Ragin, 2005). In this study we used fuzzy sets by setting anchor points for determining different degrees of membership, which have to be calibrated, on the continuum to specify different levels of membership. Calibration is performed not only in relation to other scores on the measure, but also relating back to the theoretical constructs.

The potential to relate the performance of a firm to its degree membership in a range of prototypical configurations is an advantage of the fuzzy set version of QCA (short: fsQCA) in contrast to the crisp set version (csQCA) (Kogut, MacDuffie, & Ragin, 2004). In fsQCA, every case does have different degrees of membership in the prototypical configurations. Unlike a crisp set analysis that is constrained to the analysis of dichotomized data (0 or 1), fuzzy set analysis is appropriate to conjecture from membership scales along a continuum from 0 to 1, making degree memberships possible. The basic idea is that links between conditions within cases and positive outcomes are best understood in terms of the degree membership a case has in a well-aligned configuration. The use of fsQCA does not preclude the continuous scales combined with dummy variables. Some conditions in configurations can naturally be only yes or no, present or absent. In this study, we framed each condition in the way it is used in the literature. “Business mating”, i.e. the emergence of a business relationship, and presence of “Dominant design”, the prime indicator for a more solidified market situation, are dummy variables. In contrast, the Entrepreneurial orientation and the radicalness of an invention go along a continuum.

**The music market project (for Essay IV)**

The second empirical project on which the fourth original essay is based is a study of market evolution in the Swedish music industry. This project was initiated in early 2009 and was carried by myself as the lone researcher. More precisely, the idea came from curiosity about the dramatic and
exciting change the music industry’s distribution routes were undergoing at the time. At the time, no one knew in which direction the market channels were going. Old structures were in the resolution and sales figures plummeted quarter by quarter, while ever new and alternative digital distribution solutions were being launched. This research was, therefore, focused on how the market channels for recorded music had transmuted from their traditional and stable pre-Internet forms to multiple competing designs that were still in a ferment era of shaping and hence not yet fully crystallized. My theoretical interest was to examine the main patterns of market system evolution. From a Darwinian point of view, the links between system and component are seen to be dynamic and contingent, so the overall goal of the research was to relate the findings of the project to how the conditions for intra-channel business relationships are shaped by higher order transmutations – i.e. the change of the overall market channel system.

Based on the old market channel design, six archetypical organization types (components in the system) were chosen: record companies, music distribution firms, and music retailers in the physical phonogram channel, and publishers, publishing intermediates, and music streamers in the playback channel. Featuring a case-based method, the research design was initially, and throughout the data collection, exploratory, and, more or less inductive in approach. Focusing evolution meant, firstly, that the study was longitudinal and process-focused in nature. Secondly, the Darwinian commitment to systems thinking and multi-level analysis also meant that the study examined a contextualist system approach, reflecting the interplay of system (and component) design adaptation and contextual change. In its accent on systems’ embeddedness, and a recursive nature of the interconnectedness between context and system transmutation (or system level and subsystem level), this approach has methodological similarities to Pepper’s (1942) accounts of Contextualism, which later in research on organizational change was made popular by Pettigrew (1987, 1990). This Contextualism, like Darwinism, accentuates temporal states of the art in a history-dependent longitudinal procedure, and the search for holistic and multifaceted explanations. The multi-level analysis means that transmutations at a higher level (system) is seen to limit and enable interactions and dynamics within the system (conduct of the components), and interactions of the components is both shaped by, and shapes, the system design. In other words, system and components are interdependent, and components are embedded in the system just as the system is embedded in a contextual community (Quinn & Murray, 2009).
The data set that provides the foundation for the case report and analysis were collected from primarily archival and documentary sources, but also from interview sources, during 2009 to 2010, and later updated in 2011 shortly before publication with the latest trade association records. My key sources were the archival and documentary sources. In all, these included a broad set of industrial and trade reports, governmental investigations and related records from public authorities, descriptive monographs, records and statistics from trade associations and written narratives. Primary data was a total of a 3 hour 45 minute (September 2, 2009) face-to-face interview with one key informant, and, in addition, e-mail conversations and also phone calls (not in formal interview form) the month before and after. The interviewee sharing first-hand insights was a former record company owner and CEO who from inside the industry experienced the entire process from the 1980s to today.

At the time of data collection, the framework of dominant design theory was not yet adopted, making the start of the project more inductive and explorative. However, once the framework was adopted, the final essay was re-organized in favor of a more traditional outline. During the later stages of the research, additional data collection and analysis advanced in tandem.

Although limitations on length did not permit a comprehensive description of the industrial dynamics in the published version (Essay IV), I still believe that readers get enough access to the data set in order to make adequate sense of the dynamics addressed between contextual transmutations and system design adaptation, including resolution of historical industry designs/norms and windows for new variation (innovations) in a changed context.
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