STRUCTURATION THEORY
AND ORGANIZATION RESEARCH

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Structuration Theory
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To Carmen and my parents

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Munich / Appenzell, July 2011   Daniel Broger

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List of Abbreviations

CEO	Chief Executive Officer
CPST	Central Problems of Social Theory
CS	Constitution of Society
e.g.	*exempli gratia* / for example
et al.	*et alii/alia* / and other people
HES	Head of Engineering and Sales
i.e.	id est / this means
IT	Information Technology
NRSM	New Rules of Sociological Method

Abstract

This doctoral thesis makes the case for the use of Anthony Giddens's theory of structuration in the field of organization studies. We present three self-contained papers, each aimed to contribute at the topic level as well as the methodology level. In the first paper, we assess structuration theory's impact on organizational intelligence research. Our analytical approach provides an alternative to earlier accounts, which have followed a less analytical approach to assess Giddens's impact on a particular field of study. By extracting from Giddens' theoretical writings sixteen dimensions that we consider central to the 'spirit' of his structuration theory, and using them to assess contributions on different notions of organizational intelligence, we are able to draw a detailed map of the use of structuration theory in organizational intelligence research. In the second paper, we present a practice-based theory of foresight in organizations that transcends existing dualisms in foresight research. We reflect on the different roles social theory in general and structuration theory in particular can play in building organizational theories. We suggest that structuration theory can be employed either as 'sensitizing device' to formulate Mertonian-type theories of the middle-range, or as 'template', i.e. a source of inspiration to formulate substantive theories through disciplined theoretical reflection. The theory we then introduce represents a case of the latter. In the third paper, we explore how members of organizations (re)construct a shared sense of identity in situations of high identity ambiguity. The newly introduced concept 'identity draft' denotes the socially constructed, provisional, and future-oriented self-conception blueprints which organizational members create when they seek to establish a (new) identity for their organization. We present a longitudinal ethnographic study of identity drafting in a corporate venture, using structuration theory as analytical lens. This requires that we reflect upon structuration theory's status as a 'research programme' and that we develop some general rules of structurationist inquiry. In the concluding section, we provide a synthesis of our findings and propose some future research avenues.

Zusammenfassung

Diese Arbeit setzt sich mit der Verwendung der Giddens'schen Strukturationstheorie in der Organisationsforschung auseinander. Es soll aufgezeigt werden, wie fruchtbar ein Rückgriff auf Sozialtheorien – hier die Strukturationstheorie – sein kann. Wir präsentieren drei Beiträge, wobei jeder für sich sowohl einen inhaltlichen, wie auch einen methodischen Zugewinn bieten soll. Der erste Beitrag geht der Frage nach, welchen Einfluss die Strukturationstheorie in der Vergangenheit auf die Forschung zur Organisationalen Intelligenz gehabt hat. Methodologisch ergänzt dabei unser analytischer Ansatz frühere, eher oberflächliche Untersuchungen zum Einfluss von Giddens' Theorie auf bestimmte Forschungsfelder. Dass wir für unsere Untersuchung eine analytische Aufteilung der Strukturationstheorie in sechzehn Dimensionen vornehmen und letztere dann zur Analyse und Diskussion wissenschaftlicher Beiträge entlang unterschiedlicher Auffassungen von Organisationaler Intelligenz heranziehen, erlaubt uns, eine detaillierte Landkarte der Verwendung der Giddens'schen Theorie in diesem Forschungsfeld zu zeichnen. Im zweiten Beitrag wird eine praxeologische Theorie der Zukunftsorientierung (engl. *foresight*) in Organisationen auf der Basis der Strukturationstheorie entwickelt. Aus methodologischer Sicht fragen wir, welche Rollen Sozialtheorien in der Entwicklung von Organisationstheorien spielen können. Sozialtheorien können aufgrund ihrer abstrakten und generellen Natur nämlich sowohl als Sensibilisierungsinstrument in der Generierung Empirie-gestützter Theorien mittlerer Reichweite im Sinne Mertons (1967) verwendet werden, als auch als Vorlage für die Formulierung von Organisationstheorien durch disziplinierte theoretische Reflexion dienen. Die hier eingeführte Theorie verwendet die Strukturationstheorie im letzteren Sinne. Der dritte Beitrag präsentiert die Ergebnisse einer ethnographischen Studie, in welcher die alltäglichen sozialen Praktiken von Mitgliedern eines Corporate Venture in Bezug auf die Konstruktion einer gemeinsamen Identität hin untersucht wurden. Die Idee des Identitätsentwurfs als sozial verhandeltes, vorläufiges Selbstbild und die Verwendung der Strukturationstheorie als analytische Brille erlauben uns, eine Typologie und ein granulares Bild der sozialen Praktiken zur Herstellung von Identität in organisationalen Situationen hoher Ambiguität zu entwickeln. Aus methodologischer Sicht bedingt das, dass wir uns auch mit der Frage nach dem Status der Strukturationstheorie als „Forschungsprogramm" auseinandersetzen.

1.   Introduction

I seek the bridge that reaches from
the visible to the invisible through reality.
(Max Beckmann)

1.1   Background, Purpose, and Relevance

This thesis makes the case for the use of Giddens's (1976, 1979, 1984) theory of structuration in the field of organization studies. While most social theorists see the social realm as replete with incommensurable dualisms, Giddens has tirelessly reassembled what others have disassembled. His social ontology represents probably the most courageous attempt to synthesize the diverse perspectives in classical social theory.

The history of social theory is the history of a dispute over the nature of human action. The question *'Is human conduct (pre)determined or voluntary?'* has kept social theorists and researchers busy. Since Auguste Comte in the first half of the nineteenth century called for a 'physique sociale' until the late 1960s, the field of social theory was characterized by some sort of 'orthodox consensus' grounded in Comte's (1825), Durkheim's (1895, 1897) and Parson's (1937) influential work. Advocates of this consensus conceived of human actors as structural or cultural 'dopes' (Giddens, 1979: 52). In the aftermath of the 1968ies movement, which led to a new self-awareness and a renewed interest in Marxist thought, the old consensus, however, came under intense and sustained attack from social theorists of the subjectivist-interpretivist school of thought. After this 'coup' against structural-functionalist 'imperialism,' the field of social theory has found itself in disarray. As a consequence, relativistic tendencies started to build up, and the disarray following the dissolution of the old consensus has led to increasingly entrenched positions among social theorists.

In the mid 1970s, British social theorist Anthony Giddens, one of the very few which did not give in to the common claim of the incommensurability of socio-theoretical 'paradigms,' set out to develop a new common socio-theoretical ground in

which ideas from diverse perspectives could fruitfully meet. A diligent student of classical social theory, Giddens proposed that the alleged incommensurability is conceptual rather than real, i.e. ontological. To demonstrate this, he substituted 'structure,' 'systems,' 'meaning,' 'life-world,' 'events,' and 'actions' with 'practice' as primary generic social 'thing' (see Schatzki et al., 2001). How the centrality of (social) practice led him to rework other key concepts of social theory such as action, structure, and systems, will be the topic of the following section (1.2).

In the field of organization theory, this alleged incommensurability at the level of meta-theoretical paradigms has been employed to legitimize plurality in perspective and to dispel 'scientific authoritarianism' (see Burrell & Morgan, 1979). However, we agree with Weaver and Gioia (1994) in that it is paradoxical to call for cross-paradigm or multi-paradigm organizational inquiry (e.g., Morgan, 1980) while defending incommensurability at the meta-theoretical level, as some scholars have argued (e.g., Gioia & Pitré, 1990; Hassard, 1991). Furthermore, assuming the incommensurability of socio-theoretical paradigms underlying particular research precludes synthesis or other forms of unification among approaches (Weaver & Gioia, 1994: 565). Weaver and Gioia (1994) rightly ask: If incommensurability entails theoretical contradiction across paradigms, how is it even possible to conduct multi-paradigm inquiries? It turns out that the alleged incommensurability of different paradigms is merely a linguistic thesis in the Kuhnian (1962) sense, rather than a thesis of contradiction (Gioia & Weaver, 1994: 571) resulting from theoretical 'hermeticism' (Hassard, 1988). However, if this is the case, then the reconciliation of incommensurable paradigms can be achieved by establishing 'meaningful communication' across paradigms.

To provide a common ground where meaningful inter-paradigmatic communication becomes possible is at the heart of Giddens's (1976, 1979, 1984) socio-theoretical project. His 'ontology of the social' (Bryant & Jary, 1991: 27) has been exceptionally successful in resolving many of the theoretical dualisms that give rise to the alleged incommensurability of theoretical perspectives – in the field of social theory as well as organization theory. Organization scholars have drawn on structuration theory to reconcile *prima facie* contrasting views in a broad array of topic areas. However, despite Giddens's lasting impact on a wide range of research topics and areas (see Bryant, 1999), structurationist inquiries of organizational phenomena can still not be considered mainstream, but rather the 'ideology' of a few. Furthermore, Stones's (2005) conclusion that "[s]tructuration theory has reached a decisive point in its trajectory, a point that could see it fade as a distinct approach or, alternatively,

establish itself more strongly than ever as an integrated perspective able to offer invaluable kinds of systematic explanatory power and critical insight to social theory" (p. 2) is today more true than ever, and holds not only for structuration theory's role in social theory but also for its role in organization theory. Table 1-1 shows the number of articles that refer to at least one of Giddens's socio-theoretical works: *New Rules of Sociological Method* (1976; *NRSM*), *Central Problems of Social Theory* (1979; *CPST*), and *The Constitution of Society* (1984; CS). The eight publications analyzed are also the top eight management and organization journals with regard to the publication of structurationist accounts.

Table 1-1: Analysis of Top 8 Mgmt Journals Publishing on Structuration

	76-79	*80-84*	*85-89*	*90-94*	*95-99*	*00-04*	*05-09*	*10-*	*Σ*
Organization Studies		5	4	14	19	20	30	5	97
Human Relations		1	5	6	8	18	16	3	57
Journal of Mgmt Studies	1	3	12	11	4	19	5	1	56
Organization Science				4	16	14	13	3	50
Academy of Mgmt Review		1	5	5	5	7	8	2	33
Admin. Science Quarterly		6	6	7	3	4	1	2	29
Organization					2	14	6	3	25
Academy of Mgmt Journal			1	4	1	10	5		21
Total Citations	1	16	33	51	58	106	84	19	368

These numbers indicate that structuration theory's influence on organization theory is in decline, or at least stagnating. While the number of articles directly referring to Giddens's socio-theoretical project steadily grew since his first publication of *New Rules of Sociological Method* in 1976, the number of articles peaked between 2000 and 2004. Since then, the number of articles directly referring to structuration theory is declining, or at least not rising (the extrapolation of figures for 2010 indicate that, until 2014, the number of referring articles may be close to that between 2000 and 2004).

We can think of several reasons for this stagnation/decline. First, structuration theory is complex and its concepts and ideas are scattered across several publications. It requires considerable time and effort on the part of scholars not familiar with social theory in general and structuration theory in particular to come to grips with Giddens's comprehensive theory. To resolve dualisms in social theory, Giddens not only reworks the common concepts of social theory (e.g., agency, structure, power, etc.), but he introduces a series of additional concepts to theorize about how these dimensions of

the social realm relate to one another (e.g., duality of structure, structuration, knowledgeability, etc.). Since his 'grand theory' draws from a broad array of other socio-theoretical writings – especially those of Schütz, Goffman, Garfinkel, Wittgenstein, and Habermas – one needs to also engage with these complementary views to understand what precisely he adopts from them and what he leaves unrecognized. Second, Giddens has only sparsely commented on aspects related to the philosophy of science (e.g., *NRSM*: Ch. 4 and Conclusion; *CPST*: Ch. 7; *CS*: Ch. 6). This has not only brought him sustained criticism (e.g., Bryant, 1992; Gregson, 1989), but it has also made it difficult for organization scholars to understand how they can adopt his ideas and propositions in their research endeavors. Third, his account has also been the target of criticism at the theoretical level. Such criticism has ranged from charges of superficial eclecticism (e.g., Mestrovic, 1998) to substantial theoretical challenges (e.g., Archer, 1982). Finally, employing social theories for organizational inquiry may not be to everybody's taste. Taking on board any particular social theory bears obligations that many organization scholars may not be willing to assume.

However, we believe that structuration theory's explanatory capacity and conceptual richness is unmatched. This does not mean that we regard structuration theory as a panacea for all research projects or questions. However, we suggest that structuration theory's potential has not yet been fully realized in the field of organization studies. This doctoral thesis and the three distinct yet complementary papers presented herein aim to rekindle organization scholars' interest in structuration theory as a fruitful theoretical lens. This, we believe, is only possible through a strengthening of the methodological basis. Therefore, each paper takes on a different methodological challenge. The methodological content of the three papers can also be formulated as three questions: 1. How can we measure Giddens's impact on a research field? 2. What kind of theories can be built from abstract social theories such as structuration theory, and how is this to be done? 3. What does it entail to employ structuration theory in an empirical inquiry?

The foregoing analysis of and comments on the declining or at least stagnating use of structuration theory in organization theory suggest that our account is timely. While Stones (2005) has attempted to rekindle interest in structuration theory by reducing its degree of abstraction and generality through conceptual specification, we do not only believe that such an approach cannot solve the stagnation problem but that it is in fact grounded in a false understanding of the goal and role of social theory – a topic to which we will return in more detail in the third part of this theses (Paper 2). In

short: To retain its broad applicability, social theories must remain at some distance to the empirical realm (see Blumer, 1954). It can only be the task of those interested in building more substantive theories of the social to 'translate' social theories such as Giddens's theory of structuration to their area or topic of interest.

To provide readers that are new to or not proficient in structuration theory with some guidance, we shall briefly summarize Giddens's central concepts and propositions. Interested readers are invited to also consult one or more of the following introductory works on structuration theory: Giddens (1976, 1979, 1984, 1989, 1991a); Held and Thompson (1989); Cohen (1989); Bryant and Jary (1991); and Parker (2000).

1.2   Structuration Theory in a Nutshell

Social theories, such as structuration theory, are abstract and general theories about the nature of human action and the constitution of social life. More than any other social theorist, Giddens has contributed to the reconstruction and renewal of social theory after the dissolution of the 'orthodox consensus' in the 1960s and early 1970s. While others have advocated a turn to more substantive issues (e.g., Merton, 1967), he has devoted no less than a decade of his work to reconstructing social theory from the ground up. Importantly, Anthony Giddens never intended replacing the old consensus with any new orthodoxy (see Giddens, 1984: xvi). His decision to focus on issues of ontology was based on two reasons. First, discussions about the possibility of social 'laws' and how social theory can be used in empirical inquiry had drawn attention away from ontological to epistemological concerns, leaving the former undertheorized. Second, he was convinced that only a meticulous reconstruction of the foundations of human conduct and the consequential reworking of ideas such as social reproduction and transformation, could unveil the conceptual character of wide-spread dualisms such as agency vs. structure, subject vs. object (society), and micro vs. macro. His efforts aimed at no less than finally overcoming the alleged incommensurability of socio-theoretical perspectives.

The introduction of Giddens's theory was timely. It connected directly to other streams within the babble of rival theoretical voices that emphasized the active, reflexive character of human conduct. It was, among others, Wittgenstein's (1953) influential work on language use and Goffman's (1959) dramaturgical interactionism

which also broke with the old idea of human conduct being somehow the result of forces, external or internal to the individual, that actors neither control nor comprehend. The starting point of the structuration project is captured in short phrase by Marx (1852: 115): *"Die Menschen machen ihre eigene Geschichte, aber sie machen sie nicht aus freien Stücken, nicht unter selbstgewählten, sondern unter unmittelbar vorgefundenen, gegebenen und überlieferten Umständen"* (‘Men make history, but not in circumstances of their own choosing.’; see also Giddens, 1984: xxi). Consequently, Giddens's intention was to develop a coherent theoretical framework "that allows [..] to understand both how actors are at the same time creators of social systems yet created by them" (Giddens, 1991: 204). This, however, required that he formulated an account that avoided both the subjectivist and the objectivist-determinist view of human action (Giddens, 1981: 15).

1.2.1 Structuration Theory's Key Concepts and Propositions

The purpose of the following introduction to structuration theory is not to provide a detailed account on Giddens's comprehensive theory. It serves only as a primer for all those who are unfamiliar with structuration theory's concepts and propositions.

The Centrality of Practice. According to structuration theory, the social sciences' basic domain of study is neither the experience of the individual actor as proposed by interpretative sociologies, nor the existence of any form of societal totality as argued by functionalists and structuralists, but social practices ordered across space and time (Giddens, 1984: 2). Human social conduct is recursive since it is "in and through their activities [that] agents reproduce the conditions that make these activities possible" (p. 2). Giddens's claim of recursion also implies that human conduct is to a large extent routinized. Routine conduct is a basic feature of day-to-day social activity (Giddens, 1984: xxiii). This routinized character of social life is vital to maintaining a basic sense of trust how to ‘go on’ or, in Giddens's terms, ‘ontological security.’

The Reflexive, Knowledgeable, and Purposive Actor. While Parsons's (1937) actors are cultural and Althusser's (1969) agents structural ‘dopes,’ structuration theory's most central claim is that humans are knowledgeable, reflexive, and purposive agents (Giddens, 1984: 3). Giddens distinguishes his position not only from the collectivist view of the social actor that treats humans as manipulable agents

directed by supra-individual forces over which they have no control, but also from hermeneutic-voluntarist conceptualizations proposing that action primarily involves individually ascribed meanings (Cohen, 1989: 47f.). Structuration theory's core assumption is that social actors "have, as an inherent aspect of what they do, the capacity to understand what they do while they do it" (Giddens, 1984: xxii). According to Giddens, both the knowledgeability of actors as well as the inherent routine character of most day-to-day activities are established through ongoing and interdependent processes of reflexive monitoring, rationalization, and motivation.

Figure 1-1: Giddens's 'Stratification Model' of the Actor
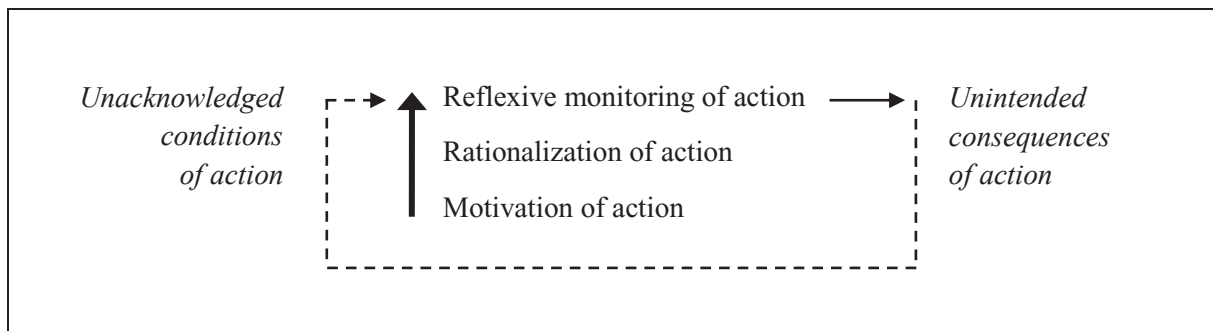
Giddens (1979: 56); Giddens (1984: 5)

Actors' knowledgeability, Giddens proposes, is based first and foremost on the ongoing *reflexive monitoring* of one's own actions, the actions of others, and the context of these actions, i.e. the material and temporal aspects of (inter)action settings (Giddens, 1984: 4). It is through such reflexive monitoring that agents routinely attend to the ongoing flow of social life (Cohen, 1989: 49). This does not imply that actors do this consciously. To the contrary, reflexive monitoring takes place mostly at the level of actors' practical rather than discursive consciousness. Reflexive monitoring is continuous, as social life is. Hence, Giddens distinguishes between reflexivity as a tacit process and the discursive identification of specific acts. The latter occurs, for example, when an actor is asked to discursively clarify the meaning of his conduct.

      Rationalization of action arises from processes involved in maintaining a continuing 'theoretical understanding' of the grounds of one's activities (Giddens, 1984: 5). Rationalization is the basis upon which an actor's competence is evaluated by others. Again, rationalization must not be equated with discursive accounts of reasons that agents may provide, nor an agent's capability to supply such reasons upon request. Like processes of reflexive monitoring, rationalization processes are primarily tacit; that is, they take place on the level of practical rather than discursive

consciousness. Through ongoing processes of rationalization, agents are able to "maintain a tacit understanding of what their actions accomplish in social life" (Cohen, 1989: 50). It is only through processes of rationalization that the acting subject becomes a *purposive* actor. However, acting purposive does not imply that agents are or can be aware of all the consequences their actions (may) have. Unintended consequences are an essential element of purposive human conduct (Cohen, 1989: 50).

Lastly, the *motivation* of action refers the actors' potential for action rather than its mode. Although 'motives' seem less directly involved in most day-to-day conduct, especially in routine activities, they are ever-present as unconscious elements, indirectly disposing agents to undertake particular actions. By building on insights developed by ego-psychologists such as Freud, Giddens accepts the control of diffuse anxiety as the most generalized motivational origin of human conduct (Cohen, 1989: 53). In everyday social life, actors reduce anxiety primarily by participating in predictable routines (Giddens, 1984: 50). While the fundamental human need to maintain ontological security may be constituted at an unconscious level, maintaining this security is very much an ongoing accomplishment of the acting subject through habitual participation in routine activities. Hence, routine conduct is not only essential to the constitution of institutionalized forms of social life, it also plays a key role in the constitution of the personality of the agent (Cohen, 1989: 53). According to Giddens (1984), "[t]his is why one can say that many of the specific features of day-to-day encounter are not directly motivated. Rather, there is a generalized motivational commitment to the integration of habitual practices across time and space" (p. 64). Consequently, it is not in situations of rigid routinization of day-to-day conduct but in situations of de-routinization that agents lose their sense of autonomy. In de-routinized situations, agents no longer experience the predictability of events required to maintain ontological security (Cohen, 1989: 53).

In summary, Giddens's stratification model of the actor conceptualizes humans as reflexive, knowledgeable, and motivated agents mainly engaged in routine activities to maintain their sense of ontological security. Participation in day-to-day social life is made possible through the ongoing subjective processes of reflexive monitoring and rationalization of actions. However, while structuration theory clearly assumes a hermeneutic starting point (Giddens, 1984: 3), Giddens expands beyond the position of hermeneutic voluntarism by also elaborating concepts such as 'structural properties,' 'system,' 'duality of structure,' and 'structuration,' and by interweaving them tightly with the agential dimensions of daily social life.

8

Structure, Structural Properties, and the Duality of Structure. Giddens proposes three complementary structural concepts. Defined as "principles of organization of societal totalities" (Giddens, 1984: 185), *structural principles* are the most enduring and far-reaching structural elements involved in a society's overall institutional alignment. *Structures* are understood as sets of rules and resources "recursively implicated in the reproduction of social systems" (Giddens, 1984: 377). Finally, *structural properties* are "[institutional] features of social systems […] stretching across time and space" (p. 377).

In both structuralism and structural functionalism, structure has been conceptualized as external or internalized constraints with regard to human conduct (Giddens, 1984: 16f.). In structuration theory, 'structure' generally refers to the "structuring properties allowing the binding of time-space in social systems, i.e. the properties which make it possible for discernibly similar social practices to exist across varying spans of time and space […]" (Giddens, 1984: 17). As 'virtual order,' structures exist only as memory traces orienting the conduct of knowledgeable human agents. This implies that structures have only a bearing on human conduct if they are actively instantiated by the purposive actor. Hence, structuration theory does not regard structures as a subject-independent, external, or internalized 'force' that determines human conduct, but as a tacit set of rules of conduct and resources upon which actors purposively draw in their day-to-day activities.

Rules of conduct are "generalizable procedures applied in the enactment/reproduction of social practices" (Giddens, 1984: 21). Rules not only govern human behavior, but the following of rules renders human conduct compatible with the conduct of other actors. Rules of conduct imply 'methodical procedures' of social interaction (Giddens, 1984: 18). The competent social actor is a 'methodological specialist' drawing on mutually, i.e. socially accepted rules of conduct. Giddens suggest that these rules of conduct are organized hierarchically in terms of their spatial and temporal reach with *structural principles* being those rules with the longest time-space expansion. Independent of their reach, rules are transformational. Their transformational character derives from their twofold nature: rules are responsible not only for the constitution of meaning, but also carry the possibility of sanctioning particular human conduct (Giddens, 1984: 20). For example, the rules of a language are constitutive of that language and at the same time regulative in the sense that they normatively govern the praxis of speaking. This implies that rules of conduct are simultaneously enabling and constraining. By nature, rules can be intensive or shallow,

tacit or discursive, informal or formalized, and weakly or strongly sanctioned. Intensive rules are those which are constantly invoked in the conduct of everyday conduct. For example, rules of language are of this type. Giddens (1984: 22f.) stresses that it is most often the taken-for-granted and informal rules of behavior, rather the abstract and formalized ones (e.g., codified laws), that have a profound influence on day-to-day social conduct and that it would be a mistake to underestimate the strength of sanctions deriving from informal rules.

According to structuration theory, rules cannot be conceptualized apart from resources (Giddens, 1984: 18). Resources are the modalities actors draw on to exert power over objects (allocative resources) or actors (authoritative resources) to make interventions that alter or transform social events or states (Cohen, 1989: 28). It is through the meshing of rules and resources that actors build control strategies, i.e. ways to change or reproduce the existing system of domination and advance their own strategic autonomy. It is first and foremost the relative 'fixity' of rule-resource sets that "make it possible for discernibly similar social practices to exist across varying spans of time and space and which lend [social systems their] 'systemic' form" (Giddens, 1984: 17). In structuration theory, the term 'system' refers to a set of "reproduced relations between actors […] organized as regular social practices" (p. 25).

It is one of structuration theory's core propositions that rules and resources (structures) are not only the medium, but also the outcome of practices they recursively organize (Giddens, 1984: 25). As actors instantiate rules and resources in their conduct, they simultaneously affirm the validity of these structures for use in future conduct. This is what Giddens refers to as the 'duality of structure.' From this inevitably follows that, in structuration theory, the knowledgeable actor is not only central to the constitution of human agency, as argued earlier, but also at the core of the concept of structure. The knowledgeability of actors is essentially the *locus* where agency and structure become mutually constitutive and from which regularized social conduct emerges.

Structuration and Modes of Integration. Implied in this notion of the 'duality of structure,' as the recursive relationship between agency and structure, is the repetitive and routine character of most human conduct. According to structuration theory, the processes governing the continuity or transmutation of structures also govern the reproduction and change of social relations and practices across time and space (Giddens, 1984: 25). Since social practices effectuate the patterning of social relations,

a change in practices via change in structures implies changes of social relations. The degree to which systems of social relations are stable, organized, and permeable varies and depends on two different modes of integration: social integration and system integration. While social integration refers to cohesive effects and 'ties' arising from reciprocities of practices in face-to-face interactions, system integration concerns reciprocal relations between physically distant actors (Cohen, 1989: 41). Social integration results from the reciprocities of practices, either through interaction or through wider "circuits of reproduction implicated in the 'stretching' of [practices] across space and time" (Giddens, 1984: 191).

To analyze the processes involved in the reproduction and change of practices and social systems as bundles of social relations, Giddens divides the structural realm into three dimensions: signification, domination, and legitimation. This division, however, is only analytical and not ontological. These three structural dimensions are present to the actor as what Giddens calls 'modalities' of structuration to be invoked in situations of interaction.

Figure 1-2: Key Analytical Dimensions of Social Practices
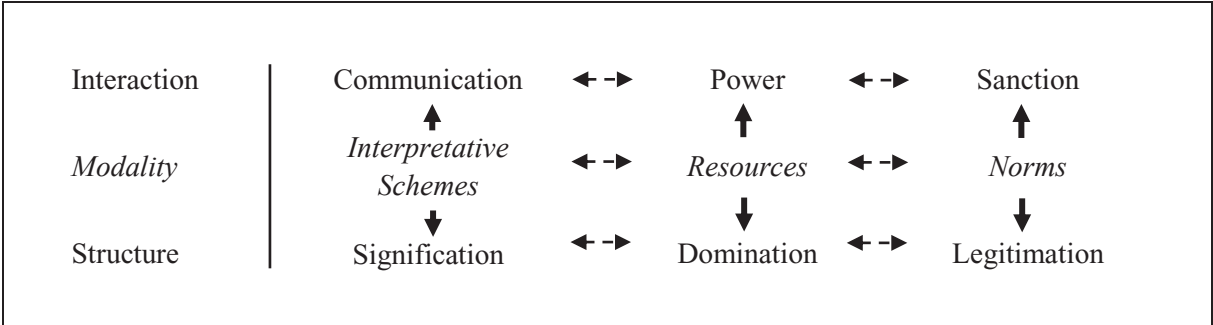
Based on Giddens (1979: 82) and Giddens (1984: 29)

In social (inter)action, actors draw on interpretative schemes, resources, and norms. Interpretative schemes are 'typifications' (Schütz, 1932) incorporated within actors' stock knowledge, applied to render communication meaningful. Normative elements of social systems that allow for the sanctioning of conduct are not, as Parsons (1937) claims, externally given conduct-harmonizing 'forces,' but "contingent claims which have to be sustained and 'made to count' through the effective mobilization of sanctions in the context of actual encounters" (Giddens, 1984: 30). Finally, resources (Giddens calls them 'facilities') allow for the mobilization of power in order to achieve desired and intended outcomes. Unlike other social theorists of power (e.g. Foucault), Giddens does not tie the concept of power to the mobilization of bias or

'control' over objects or other actors. This is only the second, subordinate 'face' of power (Giddens, 1984: 15; see also Bachrach & Baratz, 1962). In structuration theory, power is inherently tied to the exercise of agency as the human capacity to intervene in the world – to 'act otherwise' and 'make a difference' (Giddens, 1984: 14).

From the above comments on the acting subject, structure, and structuration, it is clear why structuration theory is essentially both *anti-functionalist* and *anti-evolutionist* (see also Giddens, 1981: 15). While Parson's functionalism is dismissed through the central claim that actors are purposive, knowledgeable actors, Marx's evolutionism is banned by two claims central to structuration theory: the contingency of structures that must be made to count by knowledgeable actors and the unintended consequences that can always arise from purposive conduct. In summary, structuration theory accounts for the primacy of subjectivity without relapsing into a subjectivist view and grasps the structural components of social institutions that outlive single agents without seeing in them the 'forces' determining their conduct and, eventually, human history.

1.2.2   Critics of Structuration Theory

While social theory involves the analysis of issues that spill over into philosophy, it is not primarily a philosophical endeavor (Giddens, 1984: xvii). Nevertheless, social scientists must be alive to philosophical issues related to placing social theory in the service of empirical work. Giddens (1984: xvii) rightly argues, however, that it would be false to assume that matters related to the philosophy of science must be conclusively resolved before social research can be initiated.

Since the early days of structuration theory, there were critics that doubted that Giddens's project can actually revamp the social sciences after the 'post-positivist holocaust' (see Urry, 1977: 911), not least because Giddens has always been reluctant to engage in discussions about matters of philosophy of science (Bryant, 1992). McLennan (1984) criticizes Giddens not only for being hesitant about epistemology in general, but for producing an incoherent mixture of realist, positivist, and idealist arguments. "Either theory, reality, and the possibility of philosophical coherence [or] deconstruction, multiple readings, and discursive salvoes [, b]ut not both" (p. 125). In his reply to McLennan, Cohen (1986) defends Giddens, arguing that it is possible and justified to locate Giddens's theory of structuration in the context of post-empirical

philosophy of science (Giddens repeatedly stated that his position is anti-empiricist; e.g., Giddens, 1976: 141) and that, in this light, the objectivist proposition of epistemological security as demanded by McLennan is no longer acceptable. According to Cohen (1986), it "remains incumbent upon those who adhere to any theoretical position to determine the philosophical bearings of their work" (p. 130). Subsequent criticism by McLennan (1988), Bryant (1992), and Gregson (1989) has mostly reiterated this criticism without proposing any solution this problem. Also Bryant's (1991) proposition of a dialogical model of applied sociology has also not resolved these issues.

At the theoretical level, the most substantive criticism comes from Archer (1982), who criticizes Giddens for not resolving the dualism between structure and agency, but in fact conflating the two. Archer, an advocate of Bhaskar's (1978) scientific realism, proposes instead a morphogenetic approach that allegedly avoids structuration theory's conflationism through the retention of a stronger analytical dualism that addresses three dichotomies that Giddens's concept of the duality of structure fails to deal with adequately. First, Archer advocates the specification of degrees of freedom and stringency of constraint, which make it possible to theorize about variations of voluntarism and determinism. Second, she proposes an analytical separation of structure and interaction over time, allowing for theorizing about temporal structuring. Thirdly, retaining an analytical distinction between subject and object (society) over time allows for theorizing about the influences of actors on society and vice versa (Archer, 1982: 477).

That Giddens has only very sparsely replied to criticism at the philosophical and theoretical level (e.g., Giddens, 1989) has contributed to the sustained confusion surrounding his social theory. Shortly after the publication of *The Constitution of Society* (1984), Giddens moved on work on more substantive issues, such as modernity and identity, never really returning to his socio-theoretical writings. His own lack of interest in promoting his theory through additional clarifications has hampered the adoption of his 'grand theory' among scholars. It would be   presumptuous and wrong to believe that we can resolve these complex philosophical and theoretical questions. Rather, we seek to find pragmatic solutions to put his powerful theory to work in the context of organization theory.

1.2.3 Why a Structuration Perspective?

Despite the sustained criticism raised against structuration theory, we believe that organization theory can gain substantially by building on Giddens's project. Although structuration theory is primarily concerned with explaining the nature of human action, Giddens's theoretical account has inspired a number of organization and management scholars to cover topics as diverse as organizing (e.g., Ranson et al., 1980), managerial agency (e.g., Whittington, 1992), entrepreneurship (e.g., Chiasson & Saunders, 2005; Sarason et al., 2006), innovation (e.g., Coopey et al., 1998), organizational learning (e.g., Holmqvist, 1999; Berends et al., 2003; Bresnen et al., 2004), accounting (e.g., Roberts & Scapens, 1985; MacIntosh & Scapens, 1990; Scapens & MacIntosh, 1996), technology use (e.g., Orlikowski, 1992; DeSanctis & Poole, 1994), communication (e.g., Yates & Orlikowski, 1992; Orlikowski & Yates, 1994; Barry & Crant, 2000), discourse (e.g., Heracleous & Hendry, 2000), knowledge/knowing (e.g., Hargadon & Fanelli, 2002; Orlikowski, 2002; Goodall & Roberts, 2003; Black et al., 2004; Mengis & Eppler, 2008), adaptation (e.g., Staber & Sydow, 2002; Howard-Grenville, 2005), organizational intelligence (e.g., Akgün et al., 2007), and information systems research (e.g., Gopal et al., 1992; Jones & Karsten, 2008). Most of these scholars employed structuration theory to use its integrative capacity for reconciling different theoretical perspectives. Some have more selectively drawn upon structuration theory's concepts to better understand phenomena they investigated (e.g., organizational routines).

Besides 'ontological affinity' (Pozzebon, 2004), our motivation for writing this thesis and advocating a broader and more frequent use of structuration theory in organization research is fourfold. First, as stated earlier, we believe that structuration theory's exploratory and explanatory potential has not yet been fully realized as many organization scholars are still puzzled by the confusion surrounding its 'proper' use. For this reason, all three papers presented not only focus on advancing particular research topics, but aim also at making a substantial contribution at the methodological level. Second, structurationist accounts forcefully reintroduce the human actor as constitutive factor of organizational phenomena. Such research complements and contrasts the large body of dehumanized accounts on topics that are inherently related to humans (e.g., learning, knowing, etc.). Third, structuration theory, as a practice theory, can contribute to the 'practice turn' in organization and strategy research, which has attracted considerable interest in the past two decades as scholars have become aware of the limitedness of formal models that do not account for the day-to-

day doings of organizational members. Finally, comforting scholars with the use of structuration theory and social theories in general would lead to a higher diversity of interdisciplinary accounts.

1.3 Structure of This Study

This cumulative dissertation consists of three independent papers. The commonality between these papers is that each investigates the link between structuration theory and organization research. Furthermore, each paper contributes on two levels: topic and methodology. Regarding the first, we employ structuration theory to contribute to existing research on organizational intelligence, foresight, and identity. In terms of methodology, we seek to contribute to the 'correct' and fruitful use of structuration theory in organization research. We show how scholars can measure the impact of social theory, such as structuration theory, on their field of study, how they can employ structuration theory for theory building based upon critical reflection, and how they can make sense of data gathered in empirical inquiries using structuration theory as an interpretative lens. Due to the self-contained nature of each of the three papers, there may be some redundancy. Table 1-2 summarizes the basic set-up of each paper.

In Chapter 2 (*Paper 1*), we assess structuration theory's impact on organizational intelligence research. In order to assess how Giddens's structuration theory has informed organizational intelligence scholars, we take a broad view on the concept of organizational intelligence. To embrace the full meaning of this elusive concept, we review different threads of research on organizational intelligence and the various notions of the term 'organizational intelligence' (e.g., information-processing, learning, knowing, sense-making, adaptation, etc.). To identify publications on organizational intelligence that have employed structuration theory as a theoretical basis, we conduct an extensive citation search for articles referencing one or more of Giddens's theoretical writings. In total, we identify 17 articles that both relate to the topic of organizational intelligence and draw substantially on structuration theory. In contrast to previous evaluations of Giddens's impact on a field, we adopt a more analytical approach to assessing how structuration theory has been put to use. We rate/score each article along 16 dimensions that we consider central to structuration theory in order to assess the frequency and intensity with which scholars have employed particular dimensions of Giddens's theory. We discuss each article in our

final sample and compare findings across notions and dimensions to better understand how structuration theory has informed organizational intelligence research.

Table 1-2: Overview of Research Topics and Research Questions

	Paper 1	**Paper 2**	**Paper 3**
Paper Title	Structuration Theory and Organizational Intelligence Research	Towards a Practice-Based Theory of Foresight in Organizations	Resolving High Identity Ambiguity Through Identity Drafting: An Ethnographic-Structurational Study
Primary Research Question	How has structuration theory impacted organizational intelligence research?	How can structuration theory be employed to formulate a theory of foresight in organizations that transcends existing dualisms in foresight research?	How can we use structuration theory in an empirical study of social practices involved in identity construction in situations of high identity ambiguity?
Methodological Question	How can we assess the impact of structuration theory upon a particular field of study?	How can structuration theory be employed in theory development endeavors?	How can structuration theory be deployed in empirical research projects?
Subject Areas	Organizational intelligence, information-processing, learning, knowledge/ knowing, adaptation	Foresight	Identity

In Chapter 3 (*Paper 2*), we present a practice-based theory of foresight in organizations. Despite the growing importance of foresight for organizational survival, foresight has received limited attention as a research topic. Furthermore, the field of foresight is highly fragmented as well as characterized by an array of dualisms, such as individual vs. organizational foresight, foresight as an activity/process vs. foresight as a capability, and foresight vs. hindsight. We believe that the primary reason for this is that the topic is severely under-theorized at the ontological level. To provide foresight research with a solid theoretical basis and resolve existing dualisms, we turn to Giddens's theory of structuration. However, employing abstract and general social theories – such as structuration theory – for the development of more substantive theories raises some important methodological questions. For example: How do social theory and more substantive (organization) theories relate to one another? What role

can social theory play during the theory building process? Regarding the latter, we suggest that organization scholars can employ social theories as 'sensitizing devices' in empirical inquiries to develop Mertonian-type 'theories of the middle-range' (see Merton, 1967) or as 'templates,' i.e. as sources of inspiration to formulate substantive theories through disciplined theoretical reflection. The theory we present is an example of the latter.

In Chapter 4 (*Paper 3*), we explore how Anthony Giddens's theory of structuration can be applied in order to analyze organizational members' social practices as they create, share, negotiate, and institutionalize identity drafts to resolve high identity ambiguity. The introduced concept of 'identity drafts' denotes socially constructed, provisional, and future-oriented self-conception blueprints that comprise the key elements with which to shape or recreate an organization's identity. We argue that organizational members engage in the collective praxis of identity drafting when identity ambiguity is high and a managerial 'retreat' into culture for cues as well as engaging in sense-making or sense-giving cannot resolve identity ambiguity. To identify and analyze the social practices involved in identity drafting, we conducted an ethnographic study of the set-up of a corporate venture in a large Swiss industrial group. We used structuration theory as an analytical lens to make sense of team members' conduct. However, despite the broad adoption of structuration theory among organization and management scholars in recent years, we found that researchers who used Giddens's social ontology as analytical lens have paid little attention to the epistemological and methodological implications of employing his theory in empirical research projects. We seek to fill this gap by assessing structuration theory's status as a 'research programme,' by presenting a set of general rules for employing Giddens's 'grand theory' in empirical research projects, and by commenting extensively on the research strategy and design we adopted for our study. This paper seeks to inform scholars of the premises, pitfalls, and prospects of using structuration theory in empirical research projects and foster confidence and interest among scholars to employ Giddens's rich analytical framework to gain fresh, unexpected insights into organizational phenomena.

In the Conclusion section, we synthesize the results from all three papers. We discuss the contributions our accounts make to existing research streams and identify possible limitations. We conclude our work by discussing to some interesting future research avenues and a brief overall conclusion.

2. Structuration Theory and Organizational Intelligence Research

Daniel Broger

Abstract: *In this paper, we assess structuration theory's impact on organizational intelligence research. Since introducing his practice-based social ontology in 1976, Giddens's theory has contributed to progress in a variety of disciplines, including management and organization research (Bryant, 1999). In order to assess how Giddens's structuration theory has informed organizational intelligence scholars, we take a broad view on the concept of organizational intelligence. To embrace the various meanings of this elusive concept, we review different organizational intelligence research threads and the various notions of the term 'organizational intelligence' (e.g., information-processing, learning, knowing, sense-making, adaptation, etc.). To identify publications on organizational intelligence that have employed structuration theory as their theoretical basis, we conduct an extensive citation search for articles referencing one or more of Giddens's theoretical writings. We narrow down the sample of relevant publications by applying a filter set and conducting an iterative keyword search combined with manual screening. In total, we identify 17 articles that both relate to the topic of organizational intelligence and draw substantially on structuration theory. In contrast to previous evaluations of Giddens's impact on a field, we adopt a more analytical approach to assessing how structuration theory has been put into use. We rate/score each article along 16 dimensions that we consider central to structuration theory in order to assess the frequency and intensity of scholars' employment of particular dimensions of structuration theory. We discuss each of the 17 articles in our sample and compare findings across notions and dimensions to better understand how structuration theory has informed organizational intelligence research.*

Keywords: *structuration theory, organizational intelligence, learning, knowledge, information-processing, adaptation, citation analysis*

2.1   Introduction

Organizational intelligence has received increasing attention in recent years from organization scholars. Wilensky's (1967) seminal book '*Organizational Intelligence: Knowledge and Policy in Government and Industry*' was one of the first publications dedicated to this topic. While the term 'intelligence' has had a long history of use in the military, denoting information-gathering activities about enemies, Wilensky is generally credited for introducing the concept of 'intelligence' into organization research.

From the 1960s until the late 1980s, organization and strategy scholars have employed the term 'intelligence' primarily in its classical meaning as a label for activities related to the processing of information about competitors and the environment in order to develop promising strategies. During this same period, a small group of scholars associated with the *Organizational Cybernetics* specialty area approached the topic from a different angle. They used the label 'intelligent' for organizations that meet the structural-functional requirements for long-term survival (e.g., Beer, 1972). This distinction between the strategy-related and the structure-based research threads is captured in the difference between the terms 'organizational intelligence' and 'intelligent organization.' However, despite their different focus, both research threads were based on the information-processing view of organizations. While the first assessed information-processing activities within organizations, the latter explored how organizations' information-processing infrastructure should be organized so that the organization remains in some state of equilibrium with its environment.

From the late 1980s onwards, when organization and strategy scholars began to regard organizations' resources (e.g., Wernerfelt, 1984; Peteraf, 1993) and capabilities (e.g., Prahalad & Hamel, 1990; Teece et al., 1997) as sources of competitive advantage, the use of the term 'intelligence' became much more diffuse and variegated. Intelligence became associated with other terms, such as learning (e.g., Hunt & Sanders, 1989; Bettis & Prahalad, 1995; March, 1999), knowledge (e.g., Allee, 1997; Liebowitz, 2000), sense-making (e.g., Choo, 2001), discourse (e.g., Kreps, 1990), adaptation (e.g., Schwaninger, 2006), or foresight (e.g., Beer, 1988; 'outside and *then*'). For our analysis of structuration theory's impact on research on organizational intelligence, we decided to embrace this variety of meanings of 'intelligence' in the context of organization research. Our analysis is thus not limited

to publications explicitly employing the term 'intelligence,' but extended to all publications referring or relating to one or more of the term's definitions.

Our analysis of structuration theory's impact on organizational intelligence research complements earlier assessments of the use of Giddens's social ontology in management research generally (Whittington, 1992), strategic management research (Pozzebon, 2004), and information systems research (Jones & Karsten, 2008). Our account contributes at the levels of both topic and methodology. Instead of only counting citations (see Whittington, 1992), or counting citations and discussing contributions (see Pozzebon, 2004), we follow a much more analytical approach to assessing the impact of a particular social theory, such as structuration theory, on an area of research – in this case, organizational intelligence. To explore how exactly Giddens's theory has informed organizational intelligence research, we extract 16 dimensions from his social theory that we consider central. This allows us to assess publications on organizational intelligence that have made substantial use of structuration theory along these dimensions to draw a fine-grained and detailed 'map' of the parts of structuration theory that have played a role in an account's development. An aggregation of results at the level of organizational intelligence's different notions, as well as comparing results across notions, allow us to draw conclusions about the uses of structuration theory and to spot unchartered territories for future research.

This paper is organized as follows: First, we review the main threads of organizational intelligence research and explore the different meanings of the term 'intelligence' in organization studies. In the second part, we introduce our research methodology and present some preliminary findings. To search for relevant publications, we combine a citation analysis covering 12 journals over a period of 35 years (1976 to 2010) with an iterative keyword search and manual screening. In a second step, we introduce an easy-to-use tool that allows us to assess each article along the 16 dimensions we consider central to structuration theory. In the third part of this paper, we employ our analytical methodology to conduct a multidimensional analysis of the identified articles and discuss each article to provide an in-depth view of how and why organizational intelligence scholars have used structuration theory in their accounts. This assessment and discussion is structured according to the different notions of organizational intelligence defined earlier in the paper. In addition, we compile the results from our analysis of each paper to depict how Giddens's social ontology has informed research on different notions of organizational intelligence. In

the discussion and conclusion section, we further aggregate our results to perform a cross-notion and cross-dimension analysis. The goal is to identify the different uses of structuration theory across various notions of organizational intelligence and to conclude which aspects have had the greatest impact on organizational intelligence research. Finally, we draw some general conclusions and make suggestions for future research.

2.2   Organizational Intelligence – A Multidimensional Concept

Before we assess structuration theory's impact upon organizational intelligence research, we need to clarify the term 'organizational intelligence.' This is not a trivial task since the term has been used differently by scholars from various subject areas. In order to conduct a comprehensive impact analysis, we need to embrace these various uses and meanings of the term. However, since it is not our aim to provide a new theoretical account on organizational intelligence, it is not necessary to compress the various aspects covered by the different uses of the term into a single, all-inclusive working definition. In fact, consolidating the different meanings into a single definition statement would bear the risk of losing or omitting some meanings of the term and/or potentially give primacy to a particular use. It is also beyond the scope of this paper to provide a concluding presentation of all the aspects and details of what the concept 'organizational intelligence' embraces. The goal is rather to offer a broad overview of its different notions and main uses in the organization and management literature.

In a next step, we provide a brief review of the two main threads of organizational intelligence research – the cognitive and the behavioral. Subsequently, we provide examples of the different uses of the term 'intelligence' in organization research. We offer text excerpts from definition statements referring to organizational intelligence to provide a broad overview of the variety of topics and aspects addressed under the label 'organizational intelligence.' Additionally, we cluster these text excerpts in accordance with what we call the 'notions of organizational intelligence' (e.g., intelligence as learning, etc.).

2.2.1 Threads of Organizational Intelligence Research

In context of organizations, the use and meaning of the terms 'intelligence' and 'intelligent' have varied over time. This change in use has occurred alongside shifts in organization scholars' research agendas and runs parallel to the more general 'paradigm shift' from a market-based to resource and competence-based views of strategy and competitive advantage in the 1990s. Akgün et al.'s (2007) discussion on the main threads of research on 'organizational intelligence' provides a useful starting point to explore the different uses of the terms. They argue that the term 'organizational intelligence' has been employed in three generic ways: cognitive, behavioral and socio-emotional. We briefly discuss these uses, i.e. threads of research on organizational intelligence in the following paragraphs. However, since we believe that the socio-emotional use of the term is just another label for what is already covered by the concept of 'organizational culture,' we concentrate on the cognitive and behavioral threads.

The *cognitive* thread of organizational intelligence research dates back to Harold Wilensky's (1967) use of the term in his book *'Organizational Intelligence: Knowledge and Policy in Government and Industry.'* During times when markets shifted from being supply-driven to driven by demand and competition, and when administrative theories and models of organizations became regarded as too limited and rigid, Wilensky's analogy between organizations' and the military's need for high-quality information, i.e. intelligence about terrain (environment) and enemies (competitors), provided a convincing way to think of organizations as open, information-processing entities. He argued that organizations, like the military, must overcome obstacles to gathering, processing, interpreting and communicating information in order to perceive changes in the environment in a timely way and to avoid decision disasters which could put the organization at risk. Environmental scanning (e.g., Aguilar, 1967; Fahey & King, 1977; Fahey et al., 1981; Hambrick, 1981, 1982; Culnan, 1983; Jain, 1984; Daft et al., 1988; Thomas et al., 1993; Elenkov, 1997; Choo, 2001) and the analysis of competitive forces and dynamics (e.g., Porter, 1979, 1980) became regarded as key tasks of managers in order to reduce environmental uncertainty, achieve superior performance, and warrant the long-term viability of their organizations.

During the the paradigm shift in mainstream research from market (Porter, 1979, 1980) to resource (e.g., Wernerfelt, 1984; Rumelt, 1984; Barney, 1986, 2001;

Mahoney & Pandian, 1992; Peteraf, 1993) and capability-based theories of competitive advantage (e.g., Prahalad & Hamel, 1990; Teece et al., 1997), the meaning of the terms 'intelligence' or 'intelligent' in the context of organizations became much more variegated. Information-processing was no longer considered the only ingredient to intelligence. Instead, to be deemed intelligent, organizations had to become collective entities capable of thinking, knowing, understanding, and learning (e.g., McGill & Slocum, 1994). It was argued that only learning organizations could cope with the increasing levels of environmental uncertainty (Garvin, 1993).

In parallel to the early information-processing accounts on organizational intelligence in mainstream organization research, there was a small group of systems theorists and organization cyberneticists who approached the topic of intelligence from a more general perspective. Concerned with developing general structural-functional models of social systems, these scholars argued that intelligence is eventually something that emerges from the interplay between a system's parts and functions. A system, i.e. organization, is considered intelligent if it is organized as an autopoietic, self-regulating system (Varela et al., 1974; Maturana & Varela, 1980; Luhmann, 1986). This systemic view was accompanied by a second, more focused use of the term 'intelligence.' In his Viable Systems Model (VSM), Beer (1972) used the term to denote an organization's function concerned with the 'outside and then' (in VSM referred to as 'System 4'). Intelligence is an organization's cognitive meta-system for looking outwards and keeping the organization in equilibrium with its environment (see Espejo & Harnden, 1989; Brocklesby et al., 1995; Brocklesby & Cummings, 1996). The difference between these two views is captured by the distinction between the two terms 'intelligent organization' and 'organizational intelligence.' While the first refers to a structural property, the second refers to a function or process. What is interesting about the systems theorists' and organization cyberneticists' view is that the term 'intelligence' has a cognitive as well as behavioral meaning. An organization deemed intelligent not only processes information but transforms it into effective behavior. The latter is not understood as a reactive adaptation to perceived changes in the environment. Effective organizational behavior requires an active engagement in and shaping of the environment (see Schwaninger, 2003).

In contrast to the purely cognitive view of intelligence and mostly in line with the newer cognitivist-behaviorist approach of organization cybernetics, the *behaviorist* thread of intelligence research suggests that intelligence is neither a trait nor a function, but a phenomenon – like the concepts of 'mind' or 'personality' – for which

behavior is in fact the only objective referent (Schlinger, 2003). Thus, organizations do not have intelligence, they can only demonstrate intelligence by acting appropriately in relation to changing conditions or problems (Glynn, 1996). An intelligent organization can "maintain itself, adapt, change, and grow within [its] environment" (Stalinski, 2004: 59). Weber et al. (1990: 290) argue that an organization's intelligence can only be assessed in terms of its ability to deal with environmental uncertainty and equivocality. Again, coping with uncertainty is not limited to reactive, but rather essentially proactive behavior. Intelligent behavior implies that the organization actively shapes its environment based on its aims and abilities (Akgün et al., 2007). Intelligence is effectiveness in goal attainment.

2.2.2 Notions of Organizational Intelligence

While the behavioral thread of organizational intelligence research is rather unified, the cognitivist view is much more fragmented. Within the latter, the term and construct 'organizational intelligence' has been employed and defined in relation to an array of other terms and constructs, such as learning, knowledge, sense-making, discourse, adaptation, and foresight. To broadly assess structuration theory's impact on organizational intelligence research, we need to account for these different sub-threads within the cognitive stream of research. However, to avoid unnecessary redundancy with the foregoing discussion of the two threads of organizational intelligence research, we confine our assessment to the presentation of text excerpts in which organization scholars have defined the concept of organizational intelligence. The following table lists various definitions of the term 'organizational intelligence' and clusters them according their primary notion.

Table 2-1: Notions of Organizational Intelligence

Notion	*Authors & Citations (in chronological order)*
Information-processing	Wilensky (1967): *"[Organizational intelligence refers to] gathering, processing, interpreting, and communicating the technical and political information needed in the decision-making process"* (p. 3)
	Feldman & March (1981): *"Reputations for organizational intelligence are built on capabilities for securing, analyzing, and retrieving information in a timely and intelligent way"* (p. 171)

Table 2-1: Notions of Organizational Intelligence (continued)

Information-processing *(continued)*	Huber (1990): *"Organizational intelligence is the output or product of an organization's efforts to acquire, process, and interpret information external to the organization"* (p. 52) Glynn (1996): *"Organizational intelligence is an organization's capability to process, interpret, encode, manipulate, and access information in a purposeful, goal-directed manner, so it can increase its adaptive potential in the environment in which it operates"* (p. 1088)
Knowledge	Allee (1997): *"Knowledge is the basic component of organizational intelligence"* (p. 87) Liebowitz (2000): *"The collective knowledge of an organization must be synthesized to form organizational intelligence"* (p. 31)
Learning	Levitt & March (1988): *"Organizational learning from experience is not only a useful perspective from which to describe organizational change; it is also an important instrument of organizational intelligence"* (p. 333) Hunt & Sanders (1989): *"It is reasonable to consider organizations as intelligent systems because they have the capability to abstract, interact, and learn from their environments"* (p. 476) Bettis & Prahalad (1995): *"[A]n organization's intelligence is the ability of the organization to learn"* (p. 8) March (1999): *"An intelligent organization is one that adopts procedures that consistently do well [...] in the face of constraints"* (p. 1)
Sense-making	Choo (2001): *"The organizational intelligence/learning process is a continuous cycle of activities that includes sensing the environment, developing perceptions and generating meaning through interpretation, using memory about past experience to help perception, and taking action based on the interpretations developed"* (p. 17)
Discourse	Kreps (1990): *"Stories are repositories of organizational intelligence"* (p. 191) Chandon & Nadler (2000): *"[D]iscourse is a medium of knowledge creation and application [enhancing organizational intelligence]"* (p. 125) Schwaninger (2001): *"[O]rganizational intelligence demands reinventing the company, abolishing [..] outdated recipes of success and building new competencies. Constant creative tension between normative management and strategy making are necessary for a company to evolve. The pertinent connection is not an algorithmic one, but it must express itself in a strenuous process of organizational discourse"* (p. 144)

Table 2-1: Notions of Organizational Intelligence (continued)

Adaptation/ Behavior	Schwaninger (2006): *"[T]he basic faculties that distinguish intelligent organizations are the abilities to adapt to changing situations [...]; to influence and shape their environment [...]; if necessary, to find a new milieu ("playing field") or to reconfigure themselves anew within their environment; and finally to make a positive net contribution to the viability and development of the larger wholes in which they are embedded"* (p. 7; enumeration and emphases removed)
Foresight	Whitehead (1931): *"[F]oresight is the crucial feature of the intelligent business mind"* (cited in Tsoukas & Shepherd, 2004a: 137)
	Turner (1976): *"[I]ntelligence failures are failures of foresight"* (p. 378)
	Beer (1988): "*[T]he intelligence function of an organization refers to manag[ing] the outside-and-then"* (p. 115)
Other	Allee (2002): *"Organizational intelligence is an organization's autopoietic network"* (p. 50f.)

This selection of statements on organizational intelligence indicates the breadth of its use and the multidimensionality of organizational intelligence as a scientific concept. While most scholars tend to stress only one particular aspect, i.e. notion of organizational intelligence, some scholars provide more embracive definitions. For example, McMaster (1996) defines organizational intelligence as "the capacity of a corporation as a whole to gather information, to innovate, to generate knowledge, and to act effectively based on the knowledge it has generated" (p. 3).

2.3   Methodology and Some Preliminary Findings

To assess the adoption of structuration theory by organization intelligence scholars and how Giddens has contributed to progress in this field, we adopted a two-step approach which combines citation search and analysis with a special form of content analysis. We carried out an extensive citation search for articles referring to one or more of Giddens's works on structuration theory. We then condensed our sample of articles by applying a set of filters, such as subject area. In a subsequent iterative keyword search and manual screening of article abstracts, we extracted those articles which touch upon organizational intelligence in the broadest sense. Each article of the remaining sample was then assessed according to how substantially it uses structuration theory. The goal was to identify articles which draw considerably on Giddens's ontology of the social.

Each of the 17 remaining articles was then categorized according to its primary notion of organizational intelligence (e.g., learning, knowing, etc.). To actually assess the use of structuration theory in each article, we developed a simple but powerful tool which allowed us to rate each article along the 16 dimensions we consider central to structuration theory. Some of these dimensions directly resemble concepts introduced by Giddens (e.g., knowledgeability, duality of structure), while others represent more general aspects of structuration theory (e.g., interaction). Assessing each article in the final sample according to these 16 dimensions allowed us to draw a detailed 'map' of organizational intelligence scholars' adoption of structuration theory. Each step of our analysis is outlined in more detail below. In addition, we discuss some preliminary findings which incurred during the search and analysis process.

2.3.1 Citation Search and Analysis

To identify the large body of articles in organization and management research which draw upon structuration theory, we conducted an extensive citation search using *ISI Web of Knowledge's* Cited Reference Search function. In a first step, we searched for articles citing at least one of Anthony Giddens's three theoretical works on structuration theory: *New Rules of Sociological Method* (NRSM; 1976); *Central Problems of Social Theory* (CPST; 1979); and *The Constitution of Society* (CS; 1984). We conducted our search in three databases (SSCI, SCI-EXPANDED, and A&HCI) and applied additional filters for language (English) and publication type (article) to narrow our search. The decision to focus on articles was based on the assumption that the review process prior to the publication of articles operates as a quality assurance procedure. Limiting our analysis to articles, however, bears the risk of missing contributions that were not published in the form of an article. The following table summarizes our findings after this initial step. The column labeled '%' represents the ratio between the number of references made to a particular work compared to the total number of citations (count[NRSM]/ count[NRSM and/or CPST and/or CS]):

Table 2-2: Number of Articles Referencing Structuration Theory

Key Publications on Structuration Theory	Count	%
New Rules of Sociological Method (NRSM)	679	14%
Central Problems of Social Theory (CPST)	1736	35%
The Constitution of Society (CS)	3386	68%
NRSM and/or CPST and/or CS (overall sample)	5013	100%

These findings indicate that Giddens's most seminal and comprehensive work related to structuration theory, *The Constitution of Society (1984)*, is also the primary work cited by scholars from various fields employing structuration theory in some way or another. In approximately seven out of ten cases (68%), authors have referenced this work either alone or in combination with NRSM and/or CPST. Although Giddens had already outlined the main threads of structuration theory in *New Rules of Sociological Method (1976)* and elaborated on them in *Central Problems of Social Theory (1979)*, we were surprised to find that only 35% of all articles have referenced CPST and only 14% cited NRSM. One of the main reasons for this may be that CS is by far the most detailed account on structuration theory reiterating many of the ideas introduced in earlier writings. Furthermore, Giddens's decision to give CS the subtitle 'Outline of the Theory of Structuration' may also have contributed to its prominence. Especially those who referred to structuration theory without making substantial use of its ideas and concepts seem to have exclusively referenced CS, ignoring Giddens's previous theoretical works. It is also interesting that there is little overlap between references to NRSM, CPST, and CS. In most cases, authors have referred to only one of the three works (calculation of overlap: 1 − count [NRSM and/or CPST and/or CS] / {count[NRSM] + count[CPST] + count[CS]} = 13.6%).

Within our overall sample, the subject area that cited Giddens's work the most is, not very surprisingly, sociology (998 citations) followed by management (743), geography (446), educational research (307), anthropology (302), interdisciplinary social sciences (301), and business (292). Overall, Giddens has been cited in over 100 subject areas. This is indicative of the breadth of the discussions and applications his work has spurred since he introduced his social theory in the mid-1970s.

For the purpose of analyzing Giddens's impact on organizational intelligence research, we filtered the above sample for publications categorized under the subject areas 'management' and 'business.' This filter reduced our overall sample by 84% to

827 articles (see Table 2-3). The column 'Red.' indicates the reducing effect of this filter.

Table 2-3: References from Organization and Management Scholars

Key Publications on Structuration Theory	Count	%	Red.
A.. New Rules of Sociological Method	84	10%	88%
B. Central Problems of Social Theory	280	34%	84%
C. The Constitution of Society	600	73%	82%
D. NRSM and/or CPST and/or CS (overall sample)	827	100%	84%

We subsequently filtered our sample for articles which underwent a rigorous review process. Following Singh et al. (2007), we assumed that the quality, i.e. rank of a journal is a valid indicator of the quality and relevance of articles published within that journal. We thus filtered the remaining sample for articles published in one of the following twelve journals:

Table 2-4: List of Journals Analyzed

Top 8 Mgmt/Org Journals on Structuration:	Selected Other Mgmt/Org Journals:
Organization Studies	Journal of Management Inquiry
Human Relations	Journal of Organizational Change Mgmt
Journal of Management Studies	Strategic Management Journal
Organization Science	Journal of Organizational Behavior
Academy of Management Review	
Administrative Science Quarterly	
Organization	
Academy of Management Journal	

The left column lists those top-ranked management and organization journals that have published the most articles referencing structuration theory in decreasing order in terms of citations. *Organization Studies* (97 articles) is the journal which has published by far the most articles making reference to structuration theory, followed by *Human Relations* (57), the *Journal of Management Studies* (56), and *Organization Science* (50). The right column lists four additional journals which we regarded as relevant to our analysis. These journals were included based on their overall relevance within the scientific community.

The following table provides an overview of how each of these journals has contributed to the dissemination of structuration theory among organization scholars. The number in front of each journal indicates its overall rank among journals that have published articles referencing structuration theory. The column entitled 'Rating' indicates the journal rating according to the WU Wien Rating May 2008 published in the latest *Journal Quality Report* (see Harzing, 2010).

Table 2-5: Results from Citations Analysis after Subject Area Filter

Journals Searched	*NRSM*	*CPST*	*CS*	*All**	*Rating***
Top 8 Mgmt/Org Journals on Structuration:					
1. Organization Studies (OS)	15	38	69	97	A
2. Human Relations (HR)	9	24	36	57	A
3. Journal of Management Studies (JMS)	7	27	36	56	A
4. Organization Science (OSc)	1	19	37	50	A+
5. Academy of Management Review (AMR)	5	15	17	33	A+
6. Administrative Science Quarterly (ASQ)	7	11	16	29	A+
7. Organization (O)	4	8	20	25	A
8. Academy of Management Journal (AMJ)	3	6	16	21	A+
Selected Other Journals:					
12. Journal of Management Inquiry (JMI)	-	3	12	14	A
12. Journal of Org. Change Mgmt (OCM)	4	6	8	14	n/a
18. Strategic Management Journal (SMJ)	-	3	8	10	A+
22. Journal of Organizational Behavior (JOB)	-	1	8	9	A
Total Citations	**55**	**161**	**283**	**415**	

* = NRSM and/or CPST and/or CS   ** Harzing (2010)

The effect of filtering for articles published in the above journals is illustrated in the following table:

Table 2-6: Results from Citations Analysis after Selected Journal Filter

Key Publications on Structuration Theory	*Count*	*%*	*Red.*
New Rules of Sociological Method	55	13%	35%
Central Problems of Social Theory	161	31%	43%
The Constitution of Society	283	68%	53%
NRSM and/or CPST and/or CS (overall sample)	415	100%	50%

Applying this filter reduced our overall sample by an additional 50%. However, this did not significantly impact the overall distribution of references to NRSM, CPST, and CS (Column '%'; compare to Table 2-3). *The Constitution of Society* (1984) remains the most cited work on structuration theory. The number of publications which have referenced more than one work remains relatively low (overlap of only 16.8%).

An analysis of the temporal distribution of articles in this sample indicates that structuration theory had its highest impact in organization and management research only about 25 years after its introduction, i.e. from year 2000 onwards. The following table depicts the development of citations since the introduction of structuration.

Table 2-7: Temporal Analysis of Structuration Theory's Impact

	76-79	80-84	85-89	90-94	95-99	00-04	05-09	10-	Total
OS		5	4	14	19	20	30	5	97
HR		1	5	6	8	18	16	3	57
JMS	1	3	12	11	4	19	5	1	56
OSc				4	16	14	13	3	50
AMR		1	5	5	5	7	8	2	33
ASQ		6	6	7	3	4	1	2	29
O					2	14	6	3	25
AMJ			1	4	1	10	5		21
JMI					5	4	5		14
OCM					2	3	8	1	14
SMJ				3	5	1		1	10
JoB						2	5	2	9
Total Citations	1	16	33	54	70	116	102	23	415

Compared to Whittington (1992), our analysis is more extensive in at least two regards. First, it covers a broader range of journals (12 vs. 3), and second, our analysis spans over a longer time period (1976-2009 vs. 1980-1990). Overall, our analysis provides a much broader picture of the adoption of structuration theory by management and organization scholars. The numbers in the above table indicate that structuration theory has been recognized as a valuable theoretical source to advance topics of organization and management but with some delay. Reason for this may be that articles referencing Giddens often comprise qualitative empirical accounts and

that it took some time for some editorial boards to accept more socio-theoretically informed qualitative research in their journals.

The above analysis also shows that the adoption of structuration theory has picked up significantly only after Whittington (1992) published his results. How much his analysis has contributed to the adoption of structuration theory among organization and management scholars cannot be said with certainty. However, according to the ISI Web of Science's *Social Science Citation Index* (WoS/SSCI) Whittington (1992) has been cited 97 times as of end of 2010, which indicates that his account has been respected as a relevant contribution to the topic.

2.3.2 Keyword Search and Manual Screening of Articles

In the second phase of our analysis, the goal was to extract articles related to the topic of organizational intelligence in some way or another from our remaining sample of 415 articles. For this purpose, we used ISI Web of Knowledge's keyword search function to filter articles by searching for terms related to the different notions of organizational intelligence outlined in the foregoing part of the paper (e.g., learning, knowing, etc.). Our search process was an iterative one. After identifying a relevant article, we screened its abstract and keyword list for related terms (e.g., knowledge/ knowing) or alternative spellings of a keyword (e.g., sense-making/sensemaking) which we then used in a new search. This iterative search procedure allowed us to identify articles which might have gone unnoticed had we worked only with a fixed list of keywords consisting of the different notions of organizational intelligence. The following table exhibits the keywords we used in our search. The number in brackets after each keyword indicates the number of hits a search term generated within our remaining sample (Note: due to the relatedness of communication and discourse, we integrated the latter into the information-processing notion for further analysis.)

Table 2-8: Keyword List for Iterative Search

Notions of Intelligence	Search Terms (Number of Articles in the Sample)
Intelligence	Intelligence (1), intelligent (0)
Information-processing	Information-processing (0), information (41), processing (4), cognition (9), technology (81), thinking (11), communication (39), conversation (13), discourse (53)

Table 2-8: Keyword List for Iterative Search (continued)

Knowledge	Knowledge (80), knowing (12)
Learning	Learning (32)
Adaptation	Adaptation (14), change (109)
Sense-making	Sense-making (28), sensemaking (30), interpretation (21)
Foresight	Foresight (0), anticipation (1), future (24)

While our keyword search allowed us to scour our sample for relevant articles, many of the articles identified through our keyword search did not relate to organizational intelligence. Especially search terms such as 'change,' 'knowledge,' 'technology,' and 'future' delivered a high number of hits of which only a few focused on questions related to our topic. For example, the search term 'change' yielded 109 hits but most articles related to other research topics, such as strategic change or change management. Similarly, the keyword 'discourse' yielded 53 hits but most articles used the term to relate to scientific discourse rather than discourse in organizations. Consequently, to identify the articles relevant to our topic, we manually reviewed the abstract of each article identified in the keyword search process. In case an article did relate to the topic of organizational intelligence in the broadest sense, we screened the body of that article to evaluate whether the article does in fact build on structuration theory. Our manual screening process was guided by two questions: (a) *'Is the article's central topic one related to organizational intelligence in the broad sense?'* and (b) *'Does the article substantially build upon structuration theory?'*. Only articles for which both questions were answered in the affirmative were included in our final sample. Ultimately, we retained only 17 articles from the total of 415 comprised in our sample prior to the keyword search and manual screening.

2.3.3 Assessing the Impact and Uses of Structuration Theory

Since structuration theory provides a rich array of terms, concepts, and ideas which can be employed quite flexibly and selectively in research projects (see Giddens, 1989: 294), we needed to find a way to assess how authors have made use of structuration theory's propositions and elements. When assessing a paper, there are two questions to be addressed. First, we asked what overall role structuration theory played in the

article. Does an account substantially draw upon structuration theory or does it only make use of its rhetoric? As mentioned in the foregoing paragraph, we considered only those articles which drew substantially upon structuration theory. Certainly, to draw a dividing line between what is considered a substantial and what is considered an insubstantial use of structuration theory is not entirely free from subjective judgment. However, our engagement with Giddens's theoretical project over the last years provided us with the necessary depth of understanding of his writings to make this decision.

The second question to be answered was which dimensions/aspects of structuration theory authors employed and with what intensity. To answer this question and assess in more detail how authors have made use of structuration theory in their accounts, we extracted 16 dimensions from Giddens's theoretical writings which we regard as central (see Table 2-9). The various dimensions can be grouped into three clusters: agential dimensions, structural dimensions, and those that reconcile the former with the latter.

Table 2-9: Dimensions of Structuration Theory

Dimensions	*Abbr.*	*Explanation*
Agential Dimensions:		
Knowledgeability	KN	Actors know a great deal about the circumstances of their conduct and that of others; most knowledge is practical in nature and thus part of our practical consciousness
Agency, Action	AA	Actors are purposive agents with the power to intervene in the world; they can always 'act differently'
Routinization	RT	Most day-to-day conduct is regularized/taken for granted
Interaction	IC	Social life is a collective project constituted in interaction
Unintended Consequences	UC	Actors cannot anticipate and overview all the consequences of their conduct; consequences of action may reach out considerably in time and space
Ontological Security	OS	Confidence/trust that the world is as it appears to be

Table 2-9: Dimensions of Structuration Theory (continued)

Structural Dimensions:

Rules and Resources	RR	Structures are comprised of rules and resources; structures are virtual, existing only as memory traces; structures become real only through appropriation
Signification Structure	SS	First structural dimension of social systems; part of shared schemes which allow actors to understand others' conduct
Domination Structure	DS	Second structural dimension of social systems; power allows actors to mobilize resources to get things done
Legitimation Structure	LS	Third structural dimension of social systems; normative side of shared rules which allows for sanctioning of conduct
Enablement and Constraint	EC	Structures not only constrain conduct, they also enable it
Non-Determinacy	ND	Human conduct is not determined by structures; structures are contingent claims which have to be actively mobilized by knowledgeable agents (mostly through practical reasoning)

Reconciliation:

Duality of Structure	DU	Structure is both the medium and outcome of conduct
Modalities	MO	Structures of signification (SS), domination (DS), and legitimation (LS) are available to actors as interpretative schemes, resources, and norms
Structuration	ST	Social relations are structured across time and space, in virtue of the duality of structure
Social Institutions	SI	Depending on their relationship, the structural dimensions (SS, DS, LS) can form symbolic orders, political institutions, economic institutions, or legal institutions

During our manual review of an article, we assigned an integer score between zero (i.e. empty) and three ('3') to each dimension, where 'empty' means the article does not make reference to a particular dimension of structuration theory and '3' means the dimension plays a decisive role in the article's argumentation. The scores for each paper were then compiled into a table (see Table 2-10). We created such a table for each notion of organizational intelligence comprising the relevant articles and their use of structuration theory. This allowed us to analyze each notion of organizational intelligence as a whole.

Table 2-10: Template for Assessing the Use of Structuration Theory

	Agency						Structure						Reconciliation				*F*	*I*
	KN	AA	RT	IC	UC	OS	RR	SS	DS	LS	EC	ND	DU	MO	ST	SI		
[A] [YEAR]*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
…	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
F ([notion])	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Σ	
I ([notion])	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Ø
[A] [YEAR]	[Author(s) /Article A] [YEAR]																	

The first column of the table comprises the code for a particular article identified in the foregoing steps. To which article a code refers is defined at the bottom of the table. This first column is followed by 16 columns, one for each of the 16 dimensions we defined as elemental to structuration theory (see Table 2-9). We assessed each article by assigning a score (consisting of whole numbers) to each dimension ranging from 0 or 'empty' (=no reference to this dimension) to 3 (=this dimension forms a part of this paper's theoretical core). Column 'F' (frequency of use) indicates how many of the 16 dimensions each article employs irrespective of each dimension's core. In contrast, column 'I' (intensity of use) exhibits the average score of each dimension referred to in a paper. It is calculated as the sum of scores for each 16 dimensions divided by the total number of dimensions employed ('F'). Thus, while the F-score indicates how comprehensively structuration theory has been adopted, the I-score indicates how intensely authors have, on average, made use of the concepts and ideas they have adopted from structuration theory. A low I-score indicates that the authors of an article may have referred to particular dimensions of structuration theory in passim without further employing them to develop the account. Both, F and I-scores provided us with a means to compare articles with regard to their adoption of the various dimensions of structuration theory.

This procedure for calculating frequency and intensity scores for each article in our final sample (horizontal axis), also holds true for the assessment of each of the 16 dimensions across a particular set of articles. To get a good overall view of the adoption of different dimensions of structuration theory, we also computed a frequency and intensity score for each dimension. Analogous to the F and I-scores on the horizontal axis, F([notion]] indicates how often a dimension has been given consideration in the set of articles referring to a particular notion of organizational

intelligence. I([notion]) indicates the average use of a particular dimension across the set of articles analyzed. It is calculated as the sum of scores for a dimension divided by the number of articles which have referred to that dimension.

In the discussion and conclusion part of this paper, we will aggregate the findings with regard to each notion to perform a cross-notion/dimension comparison. Based on the aggregation of our findings in terms of the frequency and the intensity of use of the 16 dimensions of structuration theory, we draw a 3x3-matrix that sorts the 16 dimensions according to their overall usage, i.e. impact on organizational intelligence research.

In the section that follows, we present our findings from this analysis. The analysis and discussion are structured along the different notions of organizational intelligence (e.g., intelligence as learning). In addition to the results from our assessment assembled in a score table, we discuss each article in some detail to provide a comprehensive picture of how structuration theory has been 'put into use' by different scholars.

2.4   Structuration Theory and Organizational Intelligence Research

Despite our extensive literature search, we found only one article that has applied structuration theory directly to the topic of organizational intelligence. However, we have noted earlier that the topic of organizational intelligence in a broader sense is closely related to a variety of other concepts, such as information-processing, learning, knowing, sense-making, and so forth, which can in fact be regarded as 'notions of organizational intelligence.' If we treat these notions as part of organizational intelligence in a broader sense, then the impact of structuration theory has been greater. Scholars have employed Giddens's socio-theoretical writings to investigate an array of topics, such as organizational learning (e.g., Berends et al., 2003), communication (e.g., Yates & Orlikowski, 1992), knowledge (e.g., Orlikowski, 2002), discourse (e.g., Heracleous & Hendry, 2000), and adaptation (e.g., Staber & Sydow, 2002). Taking these notions of organizational intelligence into consideration, we identified 17 publications that made substantial use of structuration theory. The following table lists our final sample of articles. The articles are grouped according to the period in which they were published (horizontal axis) and their primary notion of

organizational intelligence (vertical axis). Since no article was published prior to 1990, we omitted that period from our table.

Table 2-11: Structurationist Contributions to Organizational Intelligence

Notions	*1990-1999*	*2000-2010*
Intelligence	-	Akgün et al. (2007)
Information-processing	Orlikowski (1992) Yates & Orlikowski (1992) Orlikowski & Yates (1994) DeSanctis & Poole (1994)	Barry & Crant (2000) Heracleous & Hendry (2000)
Knowledge/ Knowing	-	Hargadon & Fanelli (2002) Orlikowski (2002) Goodall & Roberts (2003) Black et al. (2004) Mengis & Eppler (2008)
Learning	Holmqvist (1999)	Berends et al. (2003) Bresnen et al. (2004)
Adaptation	-	Staber & Sydow (2002) Howard-Grenville (2005)
Sense-making	-	-
Foresight	-	-
Total Articles	**5**	**12**

Our final sample of articles suggests that Giddens's influence on organizational intelligence research has been moderate and that it has not occurred simultaneously across its different notions. As already stated, we found no relevant publication in the period from Giddens's publication of *'New Rules of Sociological Method'* in 1976 up to the end of the 1980s. During these early years, scholars employed structuration theory to provide alternative conceptions of, for example, organizational structuring (Ranson et al., 1980). Since the 1990s, Giddens's social theory has been increasingly recognized as a valuable source of inspiration for advancing insights into an array of topics. In the area of organizational intelligence research, structuration theory was first adopted by researchers interested in information-processing and technology use in organizations. From there it quickly spread to other areas of research, such as organizational knowledge/knowing and learning in organizations. However, while scholars of information-processing and technology use (e.g., Yates & Orlikowski,

1992; DeSanctis & Poole, 1994) built substantially upon Giddens's work, early adopters in the field of organizational knowledge/knowing and learning employed it in a superficial rather than a substantive way. This changed after Hargadon and Fanelli (2002) presented their structurational account on organizational knowledge/knowing and Berends et al. (2003) published their account on organizational learning shortly after the turn of the century. During this time, also the topic of discourse in organizations was investigated by scholars employing structuration theory as an analytical frame (e.g., Heracleous & Hendry, 2000). Structuration theory has only recently been directly applied to the topic of organizational intelligence (see Akgün et al., 2007). The overall pattern of diffusion is not very surprising, given that the information-processing view of organizational intelligence has a very long history and that research on organizational knowledge, learning, and discourse in mainstream organization research has been limited until the mid-1990s. Overall, the diffusion of structurationist thinking across these areas of study resembles the larger shifts in research interests among organization and management scholars. However, we were surprised by the fact that no author has yet employed structuration theory to explore the topic of sense-making in organizations. However, a more detailed analysis revealed that some articles, such as that of Taylor and Robichaud (2004) on discourse or Mengis and Eppler's (2008) analysis of the roles of face-to-face conversations in organizations, have referred to the topic of sense-making as a secondary concern. Finally, it was not very surprising that no author has yet employed structuration theory to explore the topic of foresight given that this topic has not yet gained much attention from mainstream organization research.

Overall, the limited number of contributions that have substantially employed structuration theory to advance issues of organizational intelligence indicates that Giddens's socio-theoretical project has not been embraced by mainstream research, but has remained a specialty advocated by a few scholars. This hypothesis finds additional support in the fact that several articles in our sample were published by the same authors (e.g., Wanda Orlikowski, Loizos Heracleous). One of the reasons for the limited adoption of Giddens's grand social theory among organizational intelligence scholars may be that his theory is difficult to employ. Its complexity, its opposition to more wide-spread socio-theoretical accounts in organization research (e.g., Parsons' structural functionalism), and Giddens's limited concern with matters of empirical research (e.g., Gregson, 1989; Bryant, 1999) may have caused scholars to recoil from embracing his social theory in their research endeavors.

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In the following paragraphs, we provide an in-depth analysis, discussion, and critical review of each of the articles in our final sample. Our assessment is structured along the notions of organizational intelligence. For each article, we asked: *'What are the theoretical shortcomings addressed by the article?'; 'What is gained by employing structuration theory as an ontological framework?'*; and *'What potential topics and aspects not addressed by the paper demand further research?'* We start our assessment by reviewing Akgün et al.'s (2007) article on organizational intelligence.

2.4.1 The Structuration of Organizational Intelligence

Driven by the high degree of fragmentation in organizational intelligence research, the reductionisms resulting from a focus on either cognitive, behavioral or emotional aspects of organizational intelligence, and the ongoing discourse regarding the ontological basis of organizational intelligence, Akgün et al. (2007) employ structuration theory to develop a more unified theory of organizational intelligence. The authors argue that a comprehensive understanding of organizational intelligence demands an integration of cognitive, behavioral, and socio-emotional aspects of intelligence and a resolution of the ontological distinction between individual and organizational intelligence.

Akgün et al.'s (2007) article outlines the main arguments of each of the three threads of organizational intelligence research. While proponents of the cognitive thread regard intelligence mostly as a rather fixed property, which is based on a person's or organization's capacity to process information, advocates of the behavioral thread argue that intelligence should rather be understood as a phenomenon similar to that of 'mind' or 'personality' for which "the only objective referents are the behaviors that occasion the terms" (Akgün et al., 2007: 276). Finally, the socio-emotional thread of research has defined organizational intelligence as the "ability to understand and relate to people" (p. 277).

To present a unified model of organizational intelligence, Akgün et al. (2007) make broad use of structuration theory to show how these different threads of organizational intelligence research relate to one another. To account for the different uses and definitions of the term, they define organizational intelligence as "a manifestation of information processing, adaptive and emotional capabilities which are instantiated, reproduced, and changed through structures of signification, domination,

and legitimation, and vice versa" (p. 283). Their definition of organizational intelligence comprises not only the three main uses of the term (information processing, adaptive, emotional), but it takes on board Giddens's logic for reconciling agential and structural aspects of social conduct. Further, Akgün et al. (2007) propose that it is feasible to operationalize the organizational intelligence construct. Based upon Huber's (1991) information-processing capability constructs, Staber and Sydow's (2002) adaptive capability constructs, and Huy's (1999) emotional intelligence constructs, Akgün et al. (2007) 'operationalize' the organizational intelligence construct as the "reciprocal interactions of multiplexity, loose coupling, redundancy, information acquisition, interpretation, dissemination, storage, and implementation, and the dynamics of experiencing, reconciling, identification, encouragement, displaying freedom, and playfulness which are mediated by the process of interactions or human actions" (p. 285).

Akgün et al. (2007) draw broadly upon structuration theory to develop their original account of organizational intelligence and reconcile existing dualisms. The results from our assessment are shown in Table 2-12.

Table 2-12: The Structuration of Organizational Intelligence

	Agency						Structure						Reconciliation				F	I
	KN	AA	RT	IC	UC	OS	RR	SS	DS	LS	EC	ND	DU	MO	ST	SI		
A/B/K (2007)*	2	1	2	2			2	2	1	1		1	2	2	1		12	1.6
Frequency (F)	1	1	1	1			1	1	1	1		1	1	1	1		12	
Intensity (I)	2.0	1.0	2.0	2.0			2.0	2.0	1.0	1.0		1.0	2.0	2.0	1.0			1.6

A/B/K (2007) Akgün, Byrne & Keskin (2007)

(*=contains empirical work; 1=weak/marginal; 2=moderate; 3=central/strong; F=Frequency Score; I=Intensity Score)

While Akgün et al.'s (2007) article takes on board many concepts of structuration theory (high F-score; 12 out of 16), it lacks theoretical depth (indicated by the relatively low I-score of 1.6 in the range of 1 to 3). Although their account is a clear demonstration of structuration theory's value as a firm basis for a unified theory of organizational intelligence, the authors remain exemplary and superficial in their use of the various concepts. For example, while their definition and operationalization of organizational intelligence are embrace, the case study presented only touches upon a few aspects of the phenomenon to illustrate how structuration theory can help to grasp the aspects covered by their theory. The focus is almost exclusively upon

elaborating Staber and Sydow's (2002) adaptive capability concepts while other elements are not or only marginally covered by the case study. In this light, their operationalization statement seems like nothing more than an arbitrary enumeration or 'bricolage' of constructs.

In addition, there are several passages in the paper that raise doubts about the authors' proficiency with regard to structuration theory. Not only are the authors sloppy in their use of terms (e.g., 'duality of structuration' instead of 'duality of structure'; p. 278), but they seem to have a limited grasp of structuration theory's core assumptions. For example, stating that organizational intelligence is 'functional' to behavior (p. 286) stands in sharp contrast to structuration theory's global rejection of functionalist explanations of human conduct. Furthermore, arguing that information processing as well as adaptive and emotional capabilities are "changed through structures of signification, domination, and legitimation" neglects Giddens's statement that change emanates from actors' doings and not from structural 'forces' acting upon acting subjects. Either the authors had forgotten to mention that the social actor is the mediating instance in all of this, or they partially reintroduce the determinism view which Giddens dispelled.

Throughout the paper it remains unclear what exactly their understanding of organizational intelligence is. Arguing that organizational intelligence is something that is "created, potentially changed and then recreated" (p. 283) suggests that intelligence is conceived as some sort of reified object. This is supported by the author's remark that organizational intelligence is 'functional' to behavior (p. 286; see also above). Elsewhere in the article, organizational intelligence is defined as a "property of [...] interactions" (p. 286), or as "an everyday activity cognitively distributed and demonstrated by the behavior of people, and the culture and routines of the organization" (p. 286). The latter is the only one of the three definitions that is true to structuration theory as it describes organizational intelligence as a set of social practices.

Despite these shortcomings, Akgün et al.'s (2007) account provides a good starting-point for scholars to develop a more unified theory of organizational intelligence. However, future research should embrace structuration theory's full explanatory power to provide accounts with more analytical depth or employ the concepts of structuration theory as 'sensitizing devices' to empirically investigate organizational intelligence.

2.4.2 The Structuration of Organizational Information-processing

Organizational intelligence has traditionally been associated with an organization's capacity to gather, process, and interpret information in a timely way to support decision-making and adaptation (Wilensky, 1967; Feldman & March, 1981; Huber, 1991; Leidner & Elam, 1995; Glynn, 1996) and thus indirectly with organizational communication processes. With the advent of advanced information and communication technologies (short: ICT; e.g., electronic messaging systems, executive information systems, group decision support systems, and information management and collaboration technologies; see DeSanctis & Poole, 1994), organizations' capacity to collect, process, and interpret information about internal and external events has increased significantly. As these technologies are becoming more and more important, it is pivotal to understand their role in organizations.

Table 2-13: The Structuration of Organizational Information-processing

	Agency						*Structure*						*Reconciliation*				*F*	*I*
	KN	AA	RT	IC	UC	OS	RR	SS	DS	LS	EC	ND	DU	MO	ST	SI		
ICT Use:																		
O (1992)*	1	2		1			2	1	1	1	2	2	3	2	2	1	13	1.6
D/P (1994)*		2		2			3	1	1	2	2	1	2		3	1	11	1.8
Communication:																		
Y/O (1992)*		2		2	1		3					1	2		3	2	8	2.0
O/Y (1994)		1		2				1				1	2	1	3	2	8	1.6
B/C (2000)	1			2			1				1	1	2	1	2		8	1.4
Discourse:																		
H/H (2000)	2	2					1	3			1	2	2	2	3	2	10	2.0
Frequency (F)	3	5		4	2		5	4	2	2	4	6	6	4	6	5	58	
Intensity (I)	1.3	1.8		2.0	1.0		2.0	1.5	1.0	1.5	1.5	1.3	2.2	1.5	2.7	1.6		1.7

O (1992) *	Orlikowski (1992)	O/Y (1994)	Orlikowski & Yates (1994)
D/P (1994)*	DeSanctis & Poole (1994)	B/C (2000)	Barry & Crant (2000)
Y/O (1992)*	Yates & Orlikowski (1992)	H/H (2000)	Heracleous & Hendry (2000)

(*=contains empirical work; 1=weak/marginal; 2=moderate; 3=central/strong; F=Frequency Score; I=Intensity Score)

Scholars employing structuration theory have explored three main aspects related to information-processing in organizations: ICT use, communication, and discourse. Table 2-13 depicts how scholars of these different sub-threads of organizational intelligence research have employed structuration theory's central concepts.

Orlikowski (1992) was the first to employ structuration theory to illuminate the sociological aspects of ICT use in organizations. In her paper '*The Duality of Technology: Rethinking the Concept of Technology in Organizations*' *(1992)*, Orlikowski builds upon Giddens's notion of the 'duality of structure' to reconcile two streams of research which were separated until then (score 3 for DU). The first stream conceives technology as an objective, external 'force' which determines organizational members' conduct (e.g., Carter, 1984; Siegel et al., 1986; Davis, 1989; Hiltz & Johnson, 1990;) while the second emphasizes the agential and constructivist dimensions involved in the use of technology (e.g., Bijker et al., 1987; Fulk, 1993). Orlikowski's (1992) structurational model of technology brings together the technology-as-structure and technology-as-construction view. According to the author, technology "is the product of human action, while it also assumes structural properties" (p. 406). Technological artifacts are neither fixed nor entirely flexible; they are structured objects that are subject to interpretive flexibility. Moreover, the use of ICT is enabled and constrained by the institutional context of interaction based on these technologies, and vice versa. As agents use technology, they tacitly employ, reproduce, and transform the interpretative schemes, resources, and norms embedded in that technology. Overall, by drawing upon structuration theory in a comprehensive way (13 out of 16 dimensions are referenced), Orlikowski (1992) initiated a new research stream investigating ICT use in modern organizations. However, she takes on board many aspects of structuration theory which are not further worked out in detail (e.g., KN, UC, SS, DS, LS, and SI).

Based on Orlikowski's (1992) notion of the 'duality of technology' (DU), DeSanctis and Poole (1994) investigate how advanced information technologies enable and hinder organizational change. They argue that the implementation of new information and communication technologies, such as group decision support systems, can result in changes in the rules and resources that organizational members use in social interaction. The authors subsequently argue that structures within technology and structures within action (rules and resources; RR) are recursively related. Advanced information technologies exhibit structural properties that enable and constrain interaction among organizational members (EC). They can support or hinder coordination and provide procedures of interpersonal information exchange. Modern ICT provide structural potentials, which organizational members can "draw on to generate particular social structures in interaction" (p. 127; ST). Whether and how these structural features are appropriated is not primarily a matter of ICT design, but to

a greater degree determined by how users choose to use these technologies in what the authors call 'appropriation moves.' The features of a newly introduced ICT system may be appropriated in ways which are faithful or unfaithful to the 'spirit' of the technology. How organizational members appropriate structures provided by advanced information technologies and how these structures are 'translated' into modifications of an organization's interaction structure cannot be entirely intended nor predicted. Overall, DeSanctis and Poole's (1994) account provides a comprehensive explanation of why "advances in computing technology have not brought about remarkable improvements in organizational effectiveness" (p. 141; speak: organizational intelligence). Compared to Orlikowsky (1992), DeSanctis and Poole (1994) are a bit more selective regarding the import of concepts from structuration theory in their article (F-score of 11 vs. 13), which allows them to elaborate particular aspects in greater detail (I-score of 1.8 vs. 1.6). However, both accounts largely build on the same dimensions of structuration theory.

In addition to the technology-in-use thread of information-processing research, scholars have employed structuration theory to explore communicative practices (e.g., Yates & Orlikowski, 1992; Orlikowski & Yates, 1994) and the development of dyadic communication relationships in organizations (Barry & Crant, 2000). In exploring communication practices, the first group of scholars aimed to investigate and understand the role of organizations' 'genre repertoires' in shaping communicative interactions and practices. The concept of genre is borrowed from Miller (1984) and denotes "typified communicative actions characterized by similar substance and form and taken in response to recurrent situations" (Yates & Orlikowski, 1992: 299). Examples of genres are memos, proposals, and meetings. Each genre "serves as an institutionalized template for social action […] that shapes the ongoing communicative actions of community members through their use of it" (Orlikowki & Yates, 1994: p. 542). A genre supplies the (tacit) rules and resources for communicative (inter)actions among organizational members. Building upon the concept of genre allows the authors to transcend both deterministic and rational choice conceptions of media use in organizations. They convincingly argue that modifiable genre rules may better explain communicative actions and the role of media in organizations. For example, it is argued that genres impact the use of newly introduced information and communication technologies as actors may hold on to their 'recipes' for communication. Distinguishing between genre and media and acknowledging that genres are the medium and outcome of communicative practice ('duality of structure'; DU) allows

for a better understanding of communicative practices and the role of ICT in organizations. Yates and Orlikowski (1992) rightly conclude that Daft and Lengel's (1986) concept of 'media richness,' which has been defined exclusively on the basis of media, needs to be modified since different genres employing the same media may exhibit quite different levels of media richness. The findings from this initial study were later refined (see Orlikowski & Yates, 1994; to some extent also Yates et al., 1999). Overall, Yates and Orlikowski's (1992) article is a prime example of how structuration theory can be employed to advance insights into the subtleties of organizational life. The quality of their account results from the parsimonious use of structurationist concepts (F-score of 8) and their focus on working out the details of the few dimensions adopted (I-score of 2.0).

In another article related to the topic of communication, Barry and Crant (2000) make use of structuration theory to explore how dyadic communication relationships among organizational members are mediated by organization-level factors, such as hierarchy, structure, and culture. The authors' aim is to come to grips with the micro-level processes responsible for 'interactional richness' by building upon Daft and Lengel's (1986) information richness construct. Their aim is to enhance it by taking socio-cognitive factors of communication into account (e.g., relational perception, temporal patterns of messages, social attribution, and social expectancy) and by regarding these dyadic, micro-level processes as embedded in an enabling and constraining macro context of interaction. The article investigates, inter alia, how an organization's system of relations (e.g., relative position, role differentiation), structure (e.g., formalization, centralization, span of control), and communication processes impact interactional richness. At first, it seemed that the authors only employed structuration theory to amend Daft and Lengel's construct of media richness with some macro-level factors. However, a close review of the article reveals that the authors were able to seamlessly integrate structuration theory into their account by giving primacy to the interactional dimension (IC). Overall, the paper is a good example of how the theory of structuration can be used to advance other interactionist accounts. However, the overall use of structuration theory, with the exception of a few dimensions (IC, DU, and ST), remains shallow (I-score of only 1.4).

Last but not least, a third group of scholars has more recently employed structuration theory to investigate the topic of organizational discourse. In their seminal article, Heracleous and Hendry (2000) build extensively upon Giddens's propositions of communicative action (AA), interpretative schemes (MO), and

structures of signification (SS) to reconcile three approaches to organizational discourse: the managerialist-instrumentalist, the interpretative, and the critical. From a structurational perspective, discourse can be defined as "communicative action exhibiting structural properties" (Heracleous & Hendry, 2000: 1270). By performing communicative acts, organizational members draw upon the organization's 'deep structures' of signification (e.g., central themes, socially accepted rhetorical strategies, etc.) and thereby reconstitute and modify them. Organizations' signification structure is available to their members as interpretative schemes embedded in their stock of practical knowledge. These schemes provide the basis for sustaining communication and act as the interlinking instance between the singularity of communicative acts and the time-persistent rules, i.e. structures of discourse. However, as indicated, discursive structures are not immutable. New experiences or personal reflections can influence interpretative schemes and thus more deep-rooted structures of communicative interaction. What is particularly interesting about Heracleous and Hendry's (2000) account is that they combine structuration theory with an array of theories from various areas of study, such as cultural anthropology, ethnography, socio-cognitive linguistics, cognitive psychology, organizational cognition, and interpretative sociology. Heracleous and Hendry (2000) argue that a structurational view "places alternative approaches to discourse in context" (p. 1272). While theories on discourse are generally confined to their area of study and emphasize particular aspects, it is the structurational approach which allows for a reconciliation of different views and for balancing agential and structural elements involved in the practice of discourse. The account forwarded by Heracleous and Hendry (2000) extends also other structurational approaches such as those on the topic of 'genre repertoire' reviewed above (Yates & Orlikowski, 1992; Orlikowski & Yates, 1994). For example, Heracleous and Hendry's structurational view of discourse embraces additional types of rules besides genre rules. Moreover, since "discursive structures are enacted through and across genres" (Heracleous & Hendry, 2000: 1273), their account on organizational discourse provides the opportunity to explore the link between different genres as well as the relationship between genres and the social context. Overall, Heracleous and Hendry's (2000) article is an excellent example of how structuration theory can mediate between different views. Despite the fact that the authors take on board a considerable number of concepts borrowed from structuration theory (F-score of 10), they are diligent in putting them all to work in their account (I-score of 2.0).

All in all, the information-processing view of organizational intelligence has been well advanced by scholars adopting structuration theory. A wide range of topics has been covered, including information and communication technology use in organizations (Orlikowski, 1992; DeSanctis & Poole, 1994), genres of communication (Yates & Orlikowski, 1992; Orlikowski & Yates, 1994), the development of dyadic relationships of communication (Barry & Crant, 2000), and organizational discourse (Heracleous & Hendry, 2000). The proliferation of structurationist thought in these areas of research has continued after the publication of these articles. We found that these early yet structurationally substantial accounts have become important in their own right in that later publications on these topics used them as a substantial starting point instead of drawing directly from Giddens's (1979, 1984) original writings. This diffusion pattern has already been observed by Whittington (1992). His assessment of structuration theory's impact on management research reveals that comprehensive structurational accounts, such as Ranson et al.'s (1980) analysis of the structuring or organizational structures or Pettigrew's (1985) extensive empirical study of the structuration involved in organizational evolution, have to some extent replaced Giddens's own writings on structuration theory as a starting point for subsequent studies. Later writings on technology use (e.g., Orlikowski et al., 1995; Vaast, 2007) thus build directly on the writings of Orlikowski (1992) and DeSanctis and Poole (1994) rather than on Giddens (1976, 1979, 1984). Similarly, Yates et al.'s (1999) article on the explicit and implicit structuring of genres builds directly upon her earlier works co-authored with Wanda Orlikowski (e.g., Yates & Orlikowki, 1992; Orlikowski & Yates, 1994) but makes only limited use of Giddens's writings. It would almost seem that these research streams have absorbed structuration theory to the degree where they partially forget these concepts' and ideas' legacy, and continue to grow from seminal applications of structuration theory.

Of the numerous dimensions of structuration theory, two have clearly had the biggest impact on this area of study: structuration (F-score of 6; I-score of 2.7) and the duality of structure (F-score of 6; I-score of 2.2). Overall, the structural dimensions have received more consideration than the agential ones. This is not very surprising since scholars of ICT use have strongly focused on elaborating the role of technology in organizations. For this purpose, they had to redefine it as 'repositories of structural properties' enabling and constraining organizational members' conduct. Surprisingly, the routine character of most day-to-day activities (RT) has not been regarded as a key aspect to be considered in these accounts. In addition, scholars have shown limited

interest in exploring the effect of an organization's domination structure (DS) upon information-processing in organizations.

2.4.3 *The Structuration of Organizational Knowledge/Knowing*

Organizations have been conceptualized as 'decentered systems' in which knowledge is broadly distributed among actors, inherently practical, and tied to local settings (e.g., Tsoukas, 1996). It is only rather recently that scholars have started to recognize the limitations of objectivist conceptions of organizational knowledge, such as that of Nonaka and Takeuchi (1995), and stressed the importance of 'knowing' as part of one's everyday practical doings. The term 'knowing' refers to the epistemic work done as part of everyday action or practice (Cook & Brown, 1999: 387). However, despite the fundamental differences between these two perspectives, they provide complementary views on the role of knowledge in organizations. Knowledge and knowing are tightly interlaced; that is, "knowledge [..] gives shape and discipline to knowing" (Cook & Brown, 1999: 393) and knowledge is "brought into play by knowing" (p. 399). Cook and Brown (1999) add that the nature of this relationship is similar to that covered by Giddens's notion of 'structuration.' However, they do not regard their account on bridging epistemologies as a straightforward example of the relationship between structure and agency, since the latter is concerned with ontology rather than epistemology.

Our research revealed that early references made to structuration theory (e.g., Blackler, 1993, 1995; Tsoukas, 1996; Cook & Brown, 1999; Gherardi & Nicolini, 2000) did not embrace Giddens's project as a source of inspiration to advance research on the role of knowledge in organizations. Instead of employing structuration theory's concepts and explanatory logic, these authors have built first and foremost on constructivism (e.g., Tsoukas, 1996), American pragmatism (Cook & Brown, 1999) or actor-network theory (e.g., Gherardi & Nicolini, 2000). Table 2-14 depicts the core set of articles that have substantially drawn upon structuration theory to explore issues of knowing and knowledge in organizations.

Table 2-14: The Structuration of Organizational Knowledge/Knowing

	Agency						Structure						Reconciliation				F	I
	KN	AA	RT	IC	UC	OS	RR	SS	DS	LS	EC	ND	DU	MO	ST	SI		
H/F (2002)*	1						1				3			1	2		5	1.6
O (2002)*	3	2	2	1			1	1	1			1			3		9	1.7
G/R (2003)*	3	1		2			2						2				5	2.0
B/C/R (2004)		1		1									2		2		4	1.5
M/E (2008)				1			3						2		1		4	1.8
Frequency (F)	3	3	1	4			2	2	1	1	1	1	3	1	4		27	
Intensity (I)	2.3	1.3	2.0	1.3			2.5	1.0	1.0	1.0	3.0	1.0	2.0	1.0	2.0			1.7

H/F (2002)*	Hargadon & Fanelli (2002)	B/C/R (2004)	Black et al. (2004)
O (2002)*	Orlikowski (2002)	M/E (2008)	Mengis & Eppler (2008)
G/R (2003)*	Goodall & Roberts (2003)		

(*=contains empirical work; 1=weak/marginal; 2=moderate; 3=central/strong; F=Frequency Score; I=Intensity Score)

Hargadon and Fanelli's (2002) article titled *'Action and Possibility: Reconciling Dual Perspectives of Knowledge in Organizations'* is the first on the topic of knowledge to explicitly and quite substantially draw on Giddens's theoretical project. The authors make use of structuration theory's synthesizing capacity to reconcile accounts which have regarded knowledge as a source of organizational innovation with those stressing knowledge's constraining effects upon organizational change. They argue that the root of this distinction lies in different assumptions about the qualities of knowledge. While some approaches focus on the empirical qualities of knowledge, i.e. knowledge embedded in social and physical artifacts, others focus on the enabling nature of knowledge's latent qualities stored in beliefs, values, schemas, and goals. By reconceptualizing knowledge creation and knowledge use as a social process, Hargadon and Fanelli (2002) present a conclusive account that recognizes the mutual constitutive relationship between the two views and avoids the reification fallacy of traditional conceptions of knowledge. They argue that organizational knowledge emerges from the interplay between latent knowledge (i.e. tools for constructing new knowledge) and empirical knowledge (i.e. surroundings from which we build these tools). Hargadon and Fanelli (2002) mention that this 'duality of knowledge' resembles what Giddens calls the 'duality of structuration.' (It is not entirely clear what the authors are referring to here, since they terminologically mix Giddens's term 'duality of structure' with 'structuration.' However, we believe they have in fact in mind neither of the two, but refer instead to structuration theory's proposition that structures are both enabling and constraining.) The reification problem of traditional

conceptions of knowledge is resolved by conceiving knowing as a process and by stressing that knowing in organizations "exists [only] as a social phenomenon in the recursive social interactions between individuals" (p. 300). Furthermore, to argue that we align our beliefs, interpretations, schemes, and so forth, in social interaction does not imply that our knowledge is congruent in the way that the term 'shared knowledge' suggests. The authors argue that the term 'shared knowledge' induces not only reification tendencies but may be misleading since it dilutes the critical differences between each individual's idiosyncratic stock of experiences and understandings. It presupposes an objective reality that can be perceived and shared. Overall, Hargadon and Fanelli's (2002) contribution is an example how a selective use of structuration theory – the authors only refer to 5 of the 16 dimensions – can be very fruitful if the explanatory potential of the few dimensions adopted is realized. The account is almost entirely built upon structuration theory's proposition of the enabling and constraining nature of structure (EC) on the one hand, and structuration (ST) on the other. Other dimensions, such as the actors' knowledgeability (KN), signification structure (SS), and modalities of structuration (MO) are only employed in an auxiliary way.

Orlikowski (2002), a prolific writer on technology use in organizations (see 3.4.2), builds on Giddens's notion of knowledgeability to advance Lave's (1988) and Spender's (1996) earlier writings on knowing-in-practice. The article explores how members of organizations create and sustain knowledgeability in distributed operations and how knowing and practice are mutually constituted. She argues that knowing-in-practice "is continually enacted through people's everyday activity" (Orlikowski, 2002: 252) and that its status thus provisional. Knowing-in-practice emerges from the interrelationship between context, activity stream, agency, and structure and is stabilized through the establishment of routines (Orlikowski, 2002: 252f.). It is in these routine actions that humans retain their knowledgeability over time and across contexts. Similar to Hargadon and Fanelly (2002), Orlikowski (2002) is critical of the transferability of knowledge or 'best practices' between organizational units. If knowing is enacted in situated recurrent activities, then competence cannot be easily transferred to other people and other contexts. Instead, competence generation in organizations is "a process of developing people's capacity to enact what we may term 'useful practices' – with usefulness seen to be a necessarily contextual and provisional aspect of situated organizational activity" (Orlikowski, 2002: 253). Overall, the article puts a strong emphasis on the agential dimensions of structuration theory (KN, AA, RT, and IC) and reconciles them with Giddens's tripartite concept of

structure (SS, DS, LS) through the explanatory mode of structuration (ST). It demonstrates that structuration cannot only be employed to reconcile contrasting views, but also to advance particular theories which closely relate to one of the primary dimensions of structuration theory (here: knowledgeability).

Similar to Orlikowski (2002), Goodall and Roberts (2003) explore the link between knowledge and action as well as how knowledgeability is preserved and restored in organizations with distributed operations (Note: the article by Goodall and Roberts [2003] does make reference to Orlikowski [2002]). Goodall and Roberts (2003) choose an empirical rather than a theoretical approach. They present empirical insights into the managerial practices and organizational conditions that enable the preservation of knowledgeability in a transnational organization. The study investigates how managers repair what the authors call the 'damage of distance' (p. 1153). According to Goodall and Roberts (2003), the distance between organizational units is routinely bridged by communicating knowledge of the local context to remote offices in order to influence policy decisions and by gathering knowledge of remote happenings to coordinate local action with shifts in corporate thinking. Their article employs Giddens's notion of knowledgeability to emphasize the connection between knowledge and situated action. Being knowledgeable means being "able to participate in a particular 'language game'" (Goodall & Roberts, 2003: 1156; the term 'language game' is borrowed from Wittgenstein). The study investigates the role of two particular types of resources for maintaining and repairing knowledgeability. To remain knowledgeable, managers in remote locations must be able to draw upon 'resources *for* distance.' These resources include, for example, a network of personal relationships, the support of a powerful member of the network ('patron') providing important information from the 'center' and positively promoting one's work, and a history of achievements in the company (track record). These resources are accumulated over time, often during face-to-face interactions, and have to be in place prior to departing for a remote location. To repair 'damages of distance,' managers can also employ what the Goodall and Roberts (2003) call 'resources *at* distance.' Once managers have departed for a remote location, they can use technology, punctuated co-presences (e.g., periodic face-to-face meetings), intermediaries (other members of the network), and memory (recalling 'how it is done there') to maintain and restore knowledgeability. However, for 'resources *at* distance' to be effective, actors must be able to draw upon 'resources *for* distance.' On the other hand, it is through the mobilization of the latter that the former is reproduced over time. Both are the medium

and outcome of interactions between remote managers ('duality of structure'). Overall, Godall and Roberts's (2003) account is a great example of how structuration theory can inspire the exploration of unchartered territories. Many scholars have reduced the structural dimension to the analysis of rules while neglecting the resource dimension. By putting the emphasis on the latter, the authors pursue a unique path. This is the main reason why Godall and Robert's (2003) account is highly complementary to that of Orlikowski (2002) who has concentrated on the role of rules/routines in the preservation of knowledgeability. In terms of the use of structurationist concepts, Godall and Roberts (2003) are highly selective with regard to what they take on board (only 5 of 16 dimensions) but prolific in releasing the explanatory potential of the few concepts used (I-score of 2.0).

A methodologically interesting contribution drawing upon the theory of structuration to investigate knowledge and knowing in organizations is that of Black et al. (2004). In their study, they build on Barley's (1986) widely cited study on the implementation of computer tomography (CT) in two hospitals on the one hand and on more recent studies on the structuration of new technology implementation in organizations on the other (e.g., Orlikowski, 1992; DeSanctis & Poole, 1994). Black et al's (2004) article is unique in that it proposes a way in which the recursive dynamics between the scanning activity ('action') as well as the types and accumulations of knowledge used in this activity ('structure') can be formalized and operationalized for empirical testing. The authors employ system dynamics (see Forrester, 1961; Sterman, 2000) as a dynamic modeling technique to develop a theory on the recursive relationship between activity and knowledge accumulation which validates Barley's (1986) empirical observations. The proposed model allowed the authors to simulate the link between the accumulation of operational and diagnostic expertise and the conduct of CT scanning. In line with Barley (1986), Black et al. (2004) discover that the relative difference in initial CT expertise between actors (doctors and technologists) is "pivotal in determining if a collaborative or non-collaborative pattern [of interaction] will emerge" (Black et al., 2004: p. 599). The conducted simulations suggest that an organization attains the highest levels of 'total practical knowledge,' i.e. expertise when both doctors and technologists possess similar initial levels of knowledge on CT use. The authors conclude that "more knowledge does not necessarily produce a better long-run outcome, and [..] collaborative outcomes cannot be achieved from every amount of staff expertise" (p. 601). By using system dynamics to simulate the recursive dynamics between action and knowledge, the article conveys

a deep understanding of time's role in the processes of structuration – an aspect which is mostly neglected. Moreover, recognizing that some organizational roles and structures are more resistant to change than others and that the dynamics of knowledge accumulation in organizations depends on the type of knowledge to be accumulated, researcher have to rethink the meaning of phrases such as 'mutual adaptation' and the conditions under which adaptation can take place. Thus, as an analytical approach to study recursive processes in organizations, system dynamics contributes considerably to theoretical and empirical accuracy and clarity. In this particular case, it provided the opportunity to simulate the dynamics of knowledge accumulation in social interactions with new technological artifacts. Black et al. (2004) make only selective and moderate use of concepts of structuration theory (F-score of 4; I-score of 1.5). The main reason for this is that they adopt structuration theory primarily through Barley's (1986) account rather than directly from Giddens's writings – a phenomenon which we discussed earlier in this chapter. Nevertheless, employing the dimensions of structuration (ST) and the duality of structure (DU) to show how knowledge accumulates in interaction (IC), Black et al.'s (2004) account is a truly structurationist one.

Most recently, Mengis and Eppler (2008) have approached the topic of knowledge in organizations from yet another angle. In their account, they investigate the role of face-to-face conversations for organizational knowledge processes and how these conversations can be actively managed to foster organizational knowing. The study explores the role of explicit conversation rules in organizations. Since it is primarily in face-to-face encounters that actors exchange information and "relate to each other and develop a shared reality between them" (p. 1290), understanding which rules facilitate sense-making and social knowledge processes among organizational members allows managers to 'intervene' in their conversational behavior. Such conversations are governed by various sets of rules developed and reproduced through the practice of conversation. The article then builds upon classical communication models (e.g., Shannon & Weaver, 1949) to develop a framework that analyzes the dimensions through which conversation partners make sense of and co-construct knowledge during interactions. These dimensions include messages, mental models, the conversation process, conversational intent, group dynamics, and communicative background. This framework is subsequently used to broadly examine the literature on conversational rules that enable and constrain social knowledge processes, such as knowledge creation or knowledge integration. The article organizes the myriad of

findings from previous research on conversational rules, illuminates how these rules affect each other, and how each of them can be actively managed in order to foster knowledge creation and integration in organizations. Although the article builds primarily on classical communication theory, we included it in our sample for two reasons: First, the article mobilizes structuration theory's claim that conversational encounters are primarily governed by shared rules. Second, the article demonstrates how scholars can explore single dimensions of structuration theory – in this case rules (RR). Thus, although the article makes only a superficial reference to other dimensions of structuration theory, such as interaction (IC), the duality of structure (DU), or structuration (ST), its focus on rules (RR) results in a decent intensity score (1.8).

In this section, we reviewed five substantial contributions on knowledge/knowing in organizations that draw upon structuration theory. Two publications have built on Giddens's ideas about structures as rules and resources (Hargadon & Fanelli, 2002; Mengis & Eppler, 2008), two on the concept of knowledgeability (Orlikowski, 2002; Goodall & Roberts, 2003), and one on the recursive dynamics of structuration (Black et al., 2004). Four of the five accounts made use of the concepts of interaction (IC) and structuration (ST). This is not very surprising since knowledge and knowledgeability are created and sustained in interaction. The high intensity scores for EC (I-score of 3), RR (I-score of 2.5), and KN (I-score of 2.2) resulted from the fact that scholars have provided highly focused accounts exploring these particular dimensions. However, not all the dimensions of structuration theory have been applied to make sense of the role of knowledge in organizations. For example, researchers have not investigated the role of ontological security (OS), unintended consequences (UC) or social institutions (SI) in their accounts.

2.4.4   The Structuration of Organizational Learning

The dividing line between organizational knowledge/knowing and learning is a blurred one as organizational learning is often equated with knowledge creation (e.g., Argyris & Schön, 1978; Shrivastava, 1983; Nicolini & Meznar, 1995). It is beyond the scope of this paper to work out the subtle differences between the two. We have allocated (i.e. clustered) articles that claim to contribute to organizational learning to this notion of organizational intelligence.

Similar to the knowledge/knowing stream of structuration research, the first articles on organizational learning that made reference to Giddens's theoretical project (e.g., Tyre & van Hippel, 1997; Easterby-Smith, 1997) did not embrace his theory in a substantive way. The authors of these articles drew upon structuration theory in a too selective and limited way as these accounts could be regarded as structurationist ones. Holmqvist's (1999) study of learning in inter-organizational partnerships can be considered the first account to build on Giddens's theoretical writings, although with some limitations. The author presents a practice-related account of inter-organizational learning by drawing upon two core concepts of structuration theory: the knowledgeability of actors (KN) and the proposition that rules (RR) and routines (RT) are repositories of structure (knowledge). In inter-organizational partnerships, learning occurs when practices or shared rules are modified during interactions among members of the firms participating in the partnership. The limitations of Holmqvist's (1999) account arise from his aim to advance Nonaka's (1994) modes of knowledge conversion. For this, he had to adopt Nonaka's conception of knowledge as reified objects. This, however, stands in a conflicting relation to Giddens's proposition that structures (knowledge) are essentially virtual (see Giddens, 1984: 17). Nevertheless, Holmqvist's (1999) imports an array of concepts from structuration theory (F-score of 9) although in a rather superficial way (I-score of 1.3).

Table 2-15: The Structuration of Organizational Learning

	Agency						Structure						Reconciliation				F	I
	KN	AA	RT	IC	UC	OS	RR	SS	DS	LS	EC	ND	DU	MO	ST	SI		
H (1999)*	2	1	2	1	1	1	2					1			1		9	1.3
B/B/W (2003)*	2	2	1	1			2				2				2		7	1.7
B/G/S (2004)*	1	1		1				2	2	2			2		2		8	1.6
Frequency (F)	3	3	2	3	1	1	2	1	1	1	1	1	1		3		24	
Intensity (I)	1.7	1.3	1.5	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0		1.7			1.5

H (1999)*	Holmqvist (1999)
B/B/W (2003)*	Berends et al. (2003)
B/G/S (2004)*	Bresnen et al. (2004)

(*=contains empirical work; 1=weak/marginal; 2=moderate; 3=central/strong; F=Frequency Score; I=Intensity Score)

While Holmqvist (1999) embraces structuration theory's analytical and explanatory capacity only in a limited fashion, Berends et al.'s (2003) seminal article entitled '*The Structuration of Organizational Learning*' builds upon Giddens's grand social theory

in a more profound way to explore the topic of organizational learning. Driven by the confusion surrounding the role of the individual actor in organizational learning and the general relationship between individual and organizational learning, the authors made use of structuration theory to overcome the individual-organizational distinction and show "how organizational learning evolves from distributed social practices, creatively realized by knowledgeable individuals, […] [and] how these practices are enabled and constrained by existing structures" (Berends et al., 2003: 1035). Employing Giddens's theory has allowed the authors to offer a compelling account of individuals' roles in organizational learning which avoids the fallacy of reifying and anthropomorphizing organizations – a view which regards organizations as independent entities with human-like qualities. Moreover, Giddens's account has enabled authors to avoid the limitations of accounts which conceive of organizational learning as only a metaphor (e.g., Morgan, 1980) and the reductionism of those who view organizational learning merely as individual learning in the organizational context (e.g., Huber, 1991; Simon, 1991). Berends et al. (2003) follow Fiol and Lyles's (1985) proposition that organizational learning is more than the simple aggregation of individual learning (see also Argyris & Schön, 1978). Organizational learning should rather be understood as a social process (e.g., Brown & Duguid, 1991). The unique feature about Berends et al.'s (2003) account is that it does not first juxtapose individual and organizational learning only to subsequently reconcile them. The authors argue that only a 'retreat' into social theory can conclusively clarify the relationship between these two levels of learning and that structuration theory provides an appropriate starting point for developing a coherent account of individuals' roles in organizational learning. It is understandable that the authors draw upon structuration theory, since Giddens's primary aim has been to resolve dualisms such individual vs. society or agency vs. structure. Berends et al. (2003) thus contend that learning occurs when knowledgeable agents draw upon new knowledge to modify their practices. To illustrate how exactly agential and structural dimensions fuse in day-to-day conduct and how new knowledge is produced in recurring practices, the authors present an ethnographic study of an episode of organizational learning in an industrial research laboratory. The case demonstrates how organizational practices/routines (RT) of knowledge creation and learning are enabled and constrained (EC) by rules and resources (RR) drawn upon by knowledgeable organizational members (KN) in interactions (IC). The authors show how, through structuration (ST), organizational practices change over time (organizational learning) as actors gain new knowledge

(individual learning). From the three articles in the sample on organizational learning, Berends et al.'s (2003) account draws upon structuration theory more selectively than others (lowest F-score) but works out the dimensions adopted in considerable detail (I-score of 1.7). It is so far the most comprehensive approach to theorize organizational learning from a structuration perspective.

The most recent account on organizational learning, which builds substantively on structuration theory, is Bresnen et al.'s (2004) study on learning in project-based organizations. They employ Giddens's theory to explore how project-based organizations embed new management knowledge in the light of inherent contradictions between short-term, project task objectives and the longer-term developmental nature of organizational learning processes. They adopt Giddens's analytical segmentation of the structural realm into three parts (signification, SS; domination, DS; and legitimation, LS) to develop a theory on the micro-processes involved in the implementation, interpretation, and enactment of new management knowledge. For Bresnen et al. (2004), structuration theory provides a "valuable framework for exploring the diffusion of new management knowledge across organizations whose structures are project-based" (p. 1536). It is primarily its notion of the recursive relationship between agency and structure, which supplies an explanatory logic for the ongoing reproduction and possibilities of changing management practices in project-based organizations. The article comprises a lengthy and insightful empirical study on the introduction of a new project performance evaluation tool in a construction firm. The study explores how features of project-based organizations, such decentralization, short-term emphasis on project performance, and distributed work practices influence attempts to embed a new tool (speak: new knowledge) in current project management practices. The authors conclude that learning in project-based organizations is "influenced by a complex interplay between structural conditions within the organization and existing project management practices" (p. 1551). From a structuration stance, the article puts an emphasis on structural aspects (SS, DS, LS) while only marginally touching on agential aspects of learning. The account remains somewhat superficial in terms of its use of structuration theory's broad and rich body of concepts and notions (I-score of 1.6).

Our assessment of Giddens's impact upon research on organizational learning reveals that structuration theory has been adopted in quite different ways and with different diligence. While Berends et al.'s (2003) account is quintessentially structurationist, those by Holmqvist (1999) or Bresnen et al. (2004) are more limited.

Furthermore, Holmvist's (1999) account follows a path which only partially conforms to structuration theory's general propositions as it builds on Nonaka's (1994) objectivist conception of knowledge. Nevertheless, the three articles discussed have demonstrated different ways to put structuration theory to use in research organizational learning. From all the dimensions assessed, the dimensions of knowledgeability (KN), agency and action (AA), interaction (IC), and structuration (ST) were referred to in all three articles (F-score of 3). Interestingly, while agential dimensions have been adopted more broadly than structural dimensions, the latter have been used more intensely (on average higher I-scores). One of the reasons for this is that the authors have referred to dimensions such knowledgeability, interaction, and so forth primarily to prepare the setting for their account. Overall, scholars can still employ structuration theory to explore other aspects of organizational learning, such the role of power and structures of domination in learning processes or the role of the wider societal context in organizational learning.

2.4.5 The Structuration of Organizational Adaptation

So far, we have concentrated on the cognitive dimensions of organizational intelligence and discussed how scholars have applied structuration theory to topics, such as ICT use (e.g., Orlikowski, 1992; DeSanctis & Poole, 1994), communication (e.g., Yates & Orlikowski, 1992; Orlikowski & Yates, 1994; Barry & Crant, 2000), discourse (e.g., Heracleous & Hendry, 2000), knowledge and knowing (e.g., Hargadon & Fanelli, 2002; Orlikowski, 2002; Goodall & Roberts, 2003; Black et al., 2004; Mengis & Eppler, 2008), and learning (e.g., Holmqvist, 1999; Berends et al., 2003; Bresnen et al., 2004). We will return to the cognitive thread of research in a moment to make some minor additions regarding the sense-making and foresight notions of organizational intelligence. For now, we turn to the behavioral-adaptionist notion of organizational intelligence.

Staber and Sydow's (2002) article on organizational adaptive capacity is the first seminal contribution to advance the behavioral thread of organizational intelligence by drawing substantially upon Giddens's writings. The article explores how multiplexity, redundancy, and loose coupling contribute to an organization's adaptive capacity. In contrast to traditional approaches on management in hypercompetitive environments, the adaptive capacity view is less about reactive

behavior aiming to find an optimal 'fit' with existing contingencies, than about continuously developing and applying new knowledge and retaining "some resource slack supporting a repertoire of potential solutions to *unforeseen* problems" (Staber & Sydow, 2002: 409; emphasis added). Moreover, it is a proactive approach to find organizational designs that "support ambiguity, diversity, and continuous learning" (p. 409), balancing exploration and exploitation (March, 1991), as well as choice, discretion, and interpretative variability to cope with volatile environments (Grabher, 1994). An organization exhibits adaptive capacity "when learning takes place at a rate faster than the rate of change in the conditions that require dismantling old routines and creating new ones" (Staber & Sydow, 2002: 410f.). However, when fast learning is a prerequisite, an organization's (core) competencies may turn into (core) rigidities (Leonard-Barton, 1992). Although adaptation and adaptive capacity may be analytically distinct concepts, they are still empirically related. If an organization is less adapted to the environment than its competitors, it may not earn the profits necessary to build adaptive capacity. Conversely, adaptive capacity is not an end in itself but is only valuable if it is eventually realized through adaptive behavior. Staber and Sydow (2002) employ structuration theory to reconcile these two concepts and gain a fuller understanding of how an organization's adaptive capacity can be managed. They argue that Giddens's theory is particularly useful for exploring adaptive capacity "because it emphasizes processes without neglecting structures and recognizes the importance of structural change without ignoring the need for stability" (p. 413). The authors argue that a structurational conception of adaptive capacity has at least two advantages over traditional approaches that simply consider adaptive capacity as 'organizational slack' (e.g., Cyert & March, 1963). First, the latter tends to focus exclusively on resources but neglects the role or rules. According to Staber and Sydow (2002), "rules are an equally important dimension of structure, flexibility, and adaptability" (p. 414). Second, the concept of 'slack' neither reflects the multidimensional character of adaptive capacity nor does it allow for an exploration of the recursive relationship between the structural properties of adaptive capacity (structure) and adaptive behavior (action). To overcome these shortcomings, the authors introduce three structural properties of adaptive capacity – multiplexity, redundancy, and loose coupling – and explore how these properties are reproduced and changed through structuration processes (ST). Staber and Sydow (2002) conclude that these structural properties do not automatically result in adaptive capacity but that they "must be managed with respect to the signification, domination, and legitimation

aspects of structural adaptability" (p. 419; SS, DS, LS). This requires that organizations establish what Giddens (1990) calls 'institutional reflexivity,' which means that, regarding their impact on adaptive capacity, organizations have to permanently and systematically question their existing organizational practices. Overall, Staber and Sydow's (2002) article is a very good example of how structuration theory can help to expose shortcomings in traditional approaches and propose a more comprehensive view on a phenomenon. Their account adopts Giddens's conceptualization of structures as rules and resources (RR) – instead of only resources – and explores how adaptive capacity is reproduced and changed over time through processes of structuration (ST). Overall, the authors take on board half of the dimensions we assessed (F-score of 8) and put them well to work (I-score of 1.9) to develop an advanced account on the topic of adaptation. Table 2-16 summarizes the results of our assessment.

Table 2-16: The Structuration of Organizational Adaptation

	Agency						*Structure*						*Reconciliation*				*F*	*I*
	KN	AA	RT	IC	UC	OS	RR	SS	DS	LS	EC	ND	DU	MO	ST	SI		
S/S (2002)	1						2	2	2	2			2	1	3		8	1.9
H (2005)		2	3				2		1		1	1	2	1	3		9	1.8
Frequency (F)	1	1	1				2	1	2	1	1	1	2	2	2		16	
Intensity (I)	1.0	2.0	3.0				2.0	2.0	1.5	2.0	1.0	1.0	2.0	1.0	3.0			1.8

S/S (2002)   Staber & Sydow (2002)
H (2005)   Howard-Grenville (2005)

(*=contains empirical work; 1=weak/marginal; 2=moderate; 3=central/strong; F=Frequency Score; I=Intensity Score)

A second article related to topic of adaptation, which has substantially drawn upon structuration theory, is Howard-Grenville's (2005) paper on the role of agency and organizational context in the persistency of flexible organizational routines (RT). The author combines Giddens's theory with agency theory to develop a model which provides an explanation for the question of why many organizational routines are persistent despite their high degree of flexibility. Howard-Grenville's (2005) view of routines contrasts classical conceptions of routines as rigid standardized operating procedures with no or little performative flexibility. Her article builds on Feldman and Pentland's (2003) distinction between two aspects of routines: idealized, ostensive aspects on the one hand and situation-specific performative aspects on the other. In her

article, Howard-Grenville (2005) employs Giddens's idea of recursion to argue that the structural-ostensive and agential-performative aspects of routines are intertwined and that flexible routine behavior emerges from their interplay. Acknowledging the importance of agency (AA) in routine conduct implies that structural-ostensive aspects of practices only exist as instantiations which are recreated or revised with each enactment (Howard-Grenville, 2005: 629). This implies that the moment of performing of routines is also the moment of the reproduction of technological (e.g., DeSanctis & Poole, 1994; Orlikowski, 2000), coordination, and normative-cultural structures that inform these routines. To change these structures, actors may draw upon power (DS) as modality (MO). However, while changing technological structures requires some command over material resources (in Giddens's terms 'allocative resources'), modifications of coordination or normative-cultural structures may be possible through access to formal or informal authority (in Giddens's terms 'authoritative resources') to change patterns of interaction. Overall, the article demonstrates how both agency (AA) and structures (RR) contribute to the persistency of flexible routines. Although the author employs some aspects of structuration theory only as 'accessories' (e.g., EC, ND), the account makes intensive use of the explanatory capacity of the dimensions adopted (I-score of 1.8).

We have included the latter article in our analysis since flexibility in organizational routines is not only an important source of endogenous change in organizations but also a prerequisite for an organization's adaptive capacity. Overall, the adaptionist thread of research has received limited attention from scholars employing structuration theory as their analytical lens. Nevertheless, the two accounts discussed demonstrate how Giddens's theory can be employed to extend existing research threads or reconcile different views on organizational adaptation.

2.4.6 The Structuration of Organizational Sense-making and Foresight

So far, we have discussed the notions of organizational intelligence for which we found at least one account that substantially draws upon structuration theory. Surprisingly, we found no publications concentrating on the topics of sense-making or foresight. We discovered that the topic of sense-making has been partially explored, although in a marginal and more subtle way. First, the topic of sense-making has appeared in the writings related to other notions of organizational intelligence. For

example, Taylor and Robichaud (2004) argue that discourse is ultimately a "manifestation of human sensemaking" (p. 396). Investigating organizational discourse as the dynamic interplay between communicative activities and discursively based interpretations (texts), the authors contend that language in organizations reflects its members' sense-making practices and interpretation habits. Texts originate when organizational members reflexively monitor and rationalize their conduct ex post. These texts (interpretations) constrain and enable the sense-making practices of actors who are trying to understand what is going on in discourses. Unfortunately, the article does not go into further details about the role and constitution of sense-making but rather focuses on the structuration involved in organizational discourse. Moreover, Taylor and Robichaud's (2004) notion of sense-making seems to be equated with Giddens's notion of the reflexive monitoring of conduct rather than regarded as a social practice resulting from the interplay between sense-making as activity and an organization's structural context of signification, legitimation, and domination.

Sense-making is also a topic in Mengis and Eppler's (2008) analysis of the roles and rules of face-to-face conversations in organizations. They argue that face-to-face encounters are elemental to knowledge and sense-making processes and that it is thus important to understand the conversational patterns and rules which favor these processes. The article introduces six dimensions which conversation partners can use when trying to make sense during face-to-face interactions. However, the authors only note that sense-making is instrumental to social knowledge processes. Mengis and Eppler (2008) conclude that "[m]embers of an organization often engage in sense-making during conversations and [that] it is primarily through this type of interaction that they share, create and integrate knowledge" (p. 1306). Sense-making enables knowledge creation and integration.

The topic of sense-making has also been touched on in accounts that reference Giddens but do not employ structuration theory in a substantial way. For example, in his analysis of the collapse of sense-making in the Mann Gulch disaster, Weick (1993: 645) criticizes structuration theory for being biased towards the continuity and stability of practices. He argues that the structuration involved between the meaning and structures of sense-making neglects that these dimension sometimes stand in a destructive rather than constructive relation to one another. Robichaud et al. (2004: 619) argue that sense-making is essentially reflexive and that it can thus be defined in terms of Giddens's notion of the reflexive monitoring of conduct and context. They state that sense-making as an activity is based upon what Giddens calls 'discursive

consciousness.' Balogun and Johnson (2004, 2005) propose that the sense-making activities of middle managers are a key aspect of the 'dialectic of control.' As change recipients and active agents, middle managers' interpretations of top-down orders of change can constrain the hegemony of top management. Lastly, Wright et al. (2000: 818) refer to structuration theory, arguing that sense-making practices are not only recursively related to events but also to actors' 'life-world.' By making this link to the wider context, authors are able to render sense-making a more open and spontaneous concept than Weick (1995b) had proposed. However, the article refers only to Giddens's notion of recursion without making further use of structuration theory's explanatory potential.

Overall, both the sense-making and foresight notions of organizational intelligence offer interesting opportunities for future research informed by structuration theory. Not only could scholars elaborate previous claims forwarded in other structurationist accounts which have referred to sense-making en passant, but using structuration theory to explore these topics could considerably enhance our understanding of them.

2.5   Discussion and Conclusion

In this paper, we assessed a sample of 17 articles related to organizational intelligence in a broad sense with regard to their use of structuration theory's rich body of concepts. In the first part of the paper, we sought to grasp the various meanings of 'organizational intelligence' in organization research by reviewing the main threads of organizational intelligence research and the term's different uses and definitions (notions). In the second part, we introduced our methodology and presented some preliminary results from the steps taken to identify the body of articles that have employed structuration theory to investigate one or more of the notions of organizational intelligence. We conducted an extensive citation analysis covering 12 journals over 35 years (1976 to 2010) in an attempt to identify all the articles that make reference to at least one of Giddens's (1976, 1979, 1984) works on structuration theory. To extract from the resulting large set of articles those that relate to the topic of organizational intelligence, we performed an iterative keyword search using terms related to organizational intelligence (e.g., learning, sense-making, etc.). To then filter out the articles that significantly adopted structuration theory, we manually screened

each article for the role structuration theory plays in it and to verify that the article actually relates to the topic of organizational intelligence. In the paper's third part, we reviewed each of the 17 articles in our final sample and assessed them according to 16 dimensions that we consider central to structuration theory. Furthermore, we examined each paper's contribution and discussed how structuration theory enabled the authors to make that contribution. Occasionally, we also pointed to future research opportunities. The discussion was structured according to the different notions of organizational intelligence.

Since we have assessed each single paper and aggregated the results according to the different notions of organizational intelligence, we can now interpret and compare the results at a higher aggregation level and draw some more general conclusions.

2.5.1 Status of the Field and a Cross-Analysis of Different Notions

All in all, organizational intelligence as a research area is still under-researched from a structuration perspective. From the more than 5,000 articles referencing one or more of Giddens's theoretical works on structuration theory, only 17 related to the topic of organizational intelligence and have made substantial use of structuration theory.

Table 2-17: Analysis of Structuration Theory's Frequency of Use

	Agency						Structure						Reconciliation				F	Ø
	KN	AA	RT	IC	UC	OS	RR	SS	DS	LS	EC	ND	DU	MO	ST	SI		
Intelligence	1	1	1	1			1	1	1	1		1	1	1	1		12	12
Info-processing	3	5		4	2		5	4	2	2	4	6	6	4	6	5	58	9.5
ICT Use	*1*	*2*		*1*	*1*		*2*	*2*	*2*	*2*	*2*	*2*	*2*	*1*	*2*	*2*	*24*	*12*
Communication	*1*	*2*		*3*	*1*		*2*	*1*			*1*	*3*	*3*	*2*	*3*	*2*	*24*	*8*
Discourse	*1*	*1*					*1*	*1*			*1*	*1*	*1*	*1*	*1*	*1*	*10*	*10*
Knowledge	3	3	1	4			2	2	1	1	1	1	3	1	4		27	5.4
Learning	3	3	2	3	1	1	2	1	1	1	1	1		1	3		24	8
Adaptation	1	1	1				2	1	2	1	1	1	2	2	2		17	8.5
Frequency (tot)	11	13	5	12	3	1	12	9	7	6	7	10	12	9	16	5		
Frequency (Ø)	.65	.76	.29	.71	.18	.06	.71	.53	.41	.35	.41	.59	.71	.53	.94	.29		

The above table depicts how often a particular dimension of structuration theory has been referred to by authors working within the confines of a particular notion of

organizational intelligence. The first column lists the different notions of organizational intelligence. For the information-processing view of organizational intelligence, we added the three sub-streams previously discussed. The notions 'sense-making' and 'foresight' were excluded from the table since none of the articles in our sample is primarily concerned with these topics. The numbers in each cell indicate how often a dimension has been employed by authors contributing to a particular aspect of organizational intelligence irrespective of the intensity of use. For example, the number '5' at the intersection of the notion 'Info-processing' and the dimension 'AA' indicates that five of the articles that explored organizational intelligence from an information-processing perspective have made reference to Giddens's concept of agency/action in their account. The column labeled 'F' is the sum of values across all 16 dimensions. The last column ('Ø') contains the average number of dimensions adopted by scholars referring to a particular notion of organizational intelligence. For example, the value '9.5' in the 'Info-processing' row means that scholars who have used structuration theory to investigate information-processing in organizations have, on average, employed 9.5 of the 16 dimensions we consider central to structuration theory. Similarly, the row labeled 'Frequency (tot)' is the sum of referrals to a particular dimension across all the different notions. The last row ('Frequency [Ø]') indicates the share of the 17 articles in our final sample to employ a particular dimension of structuration theory. For example, the Frequency (Ø)-value of '.65' for the column 'KN' states that 65% of all articles in our sample refer to Giddens's idea/concept of the knowledgeable actor.

The aggregation of results allows us to draw some conclusions. First, not all aspects (i.e. dimensions) of structuration theory have been adopted equally by organizational intelligence scholars. While concepts and notions such as structuration (94%), agency (76%), interaction (71%), the duality of structure (71%), Giddens's conceptualization of structures as sets of rules and resources (71%), or knowledgeability (65%) were adopted by the majority of authors, other aspects such as ontological security (6%), the role of unintended consequences of action (18%), the routine character of day-to-day conduct (29%), or social institutions (29%) received little attention. Reasons for this bias may be manifold. Many scholars have primarily turned to structuration theory to employ its powerful explanatory scheme for reconciling the agential and structural dimensions of phenomena. To an extent, this explains the high percentage of authors referring to structuration (94%) or the duality of structure (71%). The almost equal frequency with which Giddens's notions of agency (76%) and knowledgeability (65%)

on the one hand, and his view of structures as rules and resources (65%) on the other have been employed, supports this conclusion. This focus may also be the reason why other dimensions of structuration theory have received much less consideration. An alternative explanation for the latter could be that certain concepts are more difficult to grasp (e.g., ontological security; OS), less powerful to generate new insights from than others (e.g., unintended consequences of action; UC), or taken for granted by scholars (e.g., the routine character of everyday life; RT).

It is also interesting that scholars have adopted Giddens's tripartite view of the structural context (signification [SS], domination [DS], and legitimation [LS]) en bloc in most cases (e.g., Orlikowski, 1992, 2002; DeSanctis & Poole, 1994; Staber & Sydow, 2002; Bresnen et al., 2004; Akgün et al., 2007). The somewhat higher Frequency (tot) and Frequency (Ø) scores for signification structure (SS) is primarily the result of Heracleous and Hendry's (2000) structurational account on discourse, which concentrates on this particular aspect of interaction contexts.

In terms of the average number of dimensions adopted ('Ø'), there is a clear difference between the various notions of organizational intelligence. While scholars of knowledge/knowing have, on average, employed structuration theory's dimensions quite selectively (on average, 5.4 of 16), scholars of the information-processing *qua* ICT use view have adopted Giddens's account in a much more comprehensive way (on average, 12 of 16).

In addition to analyzing the frequency with which scholars have made use of particular dimensions of structuration theory, we can analyze usage intensity (see Table 2-18). For this purpose, we make some modifications to the above table. The scores in the table's body do not represent frequencies, but rather intensities. Each cell's intensity score is calculated by dividing the sum of all the intensity scores within a notion by the frequency with which a particular concept has been used by articles relating to that notion. For example, the score of '1.3' for the dimension 'KN' in the 'Info-processing' row is calculated from the sum of all intensity scores for that dimension in the sample of articles that investigated the information-processing notion of organizational intelligence (sum of scores in column 'KN' in Table 2-13) divided by the frequency score ('F') for that dimension and notion (calculation: $(1+1+2)/3 = 1.33 \approx 1.3$). The intensity score ('I') for each notion is equal to the sum of all single scores in a row (i.e. notion) divided by the number of dimensions appropriated. For example, information-processing scholars have employed 14 of the 16 dimensions of structuration theory (all except RT and OS). To compute the intensity score ('I'), we

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divide the total intensity score of 22.9 by 14 (calculation: (1.3+1.8+2+1+2+ 1.5+1+1.5+1.5+1.3+2.2+1.5+2.7+ 1.6)/14 = 1.64 ≈ 1.6). The same procedure was also applied to calculate the 'Intensity (Ø)' for each column (note: ICT Use, Communication, and Discourse are sub-notions, and were therefore included as weighted averages in the row 'Info-processing').

Table 2-18: Analysis of Structuration Theory's Intensity of Use

	Agency						Structure						Reconciliation				I
	KN	AA	RT	IC	UC	OS	RR	SS	DS	LS	EC	ND	DU	MO	ST	SI	
Intelligence	2	1	2	2			2	2	1	1		1	2	2	1		1.6
Info-processing	1.3	1.8		2	1		2	1.5	1	1.5	1.5	1.3	2.2	1.5	2.7	1.6	1.6
ICT Use	*1*	*2*		*2*	*1*		*2.5*	*1*	*1*	*1.5*	*2*	*1.5*	*2.5*	*2*	*2.5*	*1*	*1.7*
Communication	*1*	*1.5*		*2*	*1*		*2*	*1*			*1*	*1*	*2*	*1*	*2.7*	*2*	*1.5*
Discourse	*2*	*2*					*1*	*3*			*1*	*2*	*2*	*2*	*3*	*2*	*1.7*
Knowledge	2.3	1.3		2	1.3		2.5	1	1	1	3	1	2	1	2		1.6
Learning	1.7	1.3	1.5	1	1	1	2	2	2	2	2	1		2	1.7		1.6
Adaptation	1	2	3				2	2	1.5	2	1	1	2	1	3		1.8
Intensity (Ø)	1.7	1.5	2.2	1.8	1.1	1.0	2.1	1.7	1.3	1.5	1.9	1.1	2.1	1.5	2.1	1.6	

The above results allow us to draw some conclusions. First, the intensity of the use of structuration theory is well balanced across different notions of organizational intelligence (see column 'I'). However, the average intensity is low to moderate (between 1.5 and 1.8; full range: 1 to 3). This confirms our first impression when assessing each paper, that scholars often employed auxiliary concepts without further elaborating on them. This also supports Giddens's (1989: 294) criticism that scholars often clutter their accounts by taking on board too many structurationist concepts at once rather than picking those most relevant to the account developed. In contrast, the intensity scores vary considerably across different dimensions (see row 'Intensity [Ø]'). The dimensions RT (2.2), ST (2.1), DU (2.1), and RR (2.1) exhibit the highest intensity scores. At the lower end are OS (1.0), UC (1.1), ND (1.1), and DS (1.3). This is not very surprising, since Giddens's claim of the routine character of day-to-day conduct (RT), his concept of structuration (ST), the notion of the duality of structure (DU), and his conceptualization of structures as rules and resources (RR) are all at the center of his social theory. However, we were somewhat surprised that his notion of knowledgeability (KN) only yielded a moderate intensity score of 1.7, since this dimension is eventually the 'core' of structuration theory that ties everything together (see Parker, 2000: 52ff.). While KN unsurprisingly plays a key role in research on

knowledge and knowing, this dimension is rather weakly used in research on information-processing and learning.

Second, the dimensions ST, DU, and RR not only yielded high overall intensity scores, but also received similarly high consideration from scholars investigating different notions of organizational intelligence. Of these three concepts, Giddens's notion of the duality of structure (DU) played a key role in almost all the accounts we investigated. Its intensity scores across notions range from 2.0 to 2.5. The use of Giddens's conceptualization of structures as rules and resources was similarly balanced. The only outlier in this regard is Heracleous and Hendry's (2000) structurational account of discourse. On the other end of the scale, there are those dimensions that score low across different notions, such as the interaction dimension of structuration theory (IC; score between 1.0 and 1.3; overall intensity of 1.1). We believe the reason for this is not that scholars have forgotten to take this dimension into account, but rather that they have taken it for granted. The same might be the case for the concept of knowledgeability, although reference to this is more variegated than that of IC. That many scholars have referred to knowledgeability only in passing – especially scholars in the areas of ICT Use, Communication, and Adaptation – may not be the result of a lack of interest in this dimension. Scholars may not have been explicit about knowledgeability's role, but have assumed it as a background proposition. Furthermore, it is not surprising that the 'KN' dimension received the highest score from scholars of knowledge, since the two concepts knowledge and knowledgeability are both terminologically and empirically related.

Both the frequency and intensity analysis suggest that some dimensions of Giddens's theory are rarely referred to (e.g., ontological security; OS) while others are variably employed across different notions of organizational intelligence (e.g., RT, SI, and – to some extent – UC, DS, and LS). This is indicated by the white spots in Table 2-17 and Table 2-18. These unchartered territories offer interesting opportunities for future research. For example, it would be interesting to explore the role of power and social norms in organizational communication or discourse, or to investigate the role of unintended consequences of action (UC) with regard to different notions of organizational intelligence (e.g., unintended learning, etc.). Last but not least, research could generate additional insights into the role of routines in information-processing in organizations, or explore the existential dimension underlying the social practices of information-processing, knowledge, learning, and adaptation.

To draw an overall conclusion of structuration theory's adoption by organizational intelligence scholars, we can further compare the results from the frequency analysis with those of the intensity analysis. For this purpose, we computed a simple 3x3-matrix with frequency on the horizontal axis, and intensity on the vertical axis. Furthermore, we split both frequency and intensity into three categories – low, medium, and high. To determine the overall use of each of the 16 dimensions of structuration theory, we had to define the threshold levels to distinguish between low, medium, and high frequency on the one hand, and between low, medium, and high intensity on the other. We set these thresholds where we felt it was appropriate to demonstrate differences in the application of the different dimensions of structuration theory by organizational intelligence scholars. Importantly, we set these threshold levels before we allocated each of the dimensions. Finally, we placed each dimension in the relevant frequency-intensity intersection.

Table 2-19: Frequency-Intensity-Matrix and the Use of Structuration Theory

	Low Frequency (<40%)	*Medium Frequency (40-70%)*	*High Frequency (>70%)*
Low Intensity (<1.5)	UC, OS	DS, ND	
Medium Intensity (1.5-2.0)	LS, SI	KN, SS, EC, MO	AA, IC
High Intensity (>2)	RT	RR	DU, ST

The table summarizes how the 16 dimensions we consider central to structuration theory have been put to use in research on different aspects of organizational intelligence. On the upper end, we find the dimensions 'duality of structure' (DU) and 'structuration' (ST), which have been employed both very frequently and intensively. At the opposite end, Giddens's dimensions of 'unintended consequences' (UC) and 'ontological security' (OS) have received very little attention. From a research perspective, Table 2-19 indicates which dimensions are still underdeveloped in research on information-processing, knowledge, learning, and so forth. The row 'High Intensity' indicates that there are a few accounts that have made intensive use of the dimensions 'routine conduct' (RT) and structuration theory's conceptualization of structures as rules and resources (RR). Overall, we believe that researchers should concentrate on conducting focused studies and selectively choosing only those concepts that can add value to their accounts. However, it is important to keep in mind

that dimensions that are not directly employed are only methodologically but not ontologically bracketed (Giddens, 1984: 285).

2.5.2 Conclusion

This paper makes a contribution to existing research in multiple ways. First, it provides an overview of the different uses of the term 'organizational intelligence.' We have argued that the term has been employed in a cognitive or behavioral way. While research on the latter is rather unified, the former is highly fragmented. The cognitive view on organizations subsumes topics as diverse as information-processing, knowledge, learning, sense-making, and foresight. Second, this paper summarizes the results of more than 30 years of organizational intelligence research informed by structuration theory. We show how different notions of organizational intelligence have attracted attention from scholars proficient in Giddens's social theory (see Table 2-11). While scholars of information-processing were the first to adopt structuration theory as an analytical lens, in the early 1990s, its application spread quickly to other notions of organizational intelligence. The last area to be informed by Giddens's social theory is that of organizational intelligence itself. However, Akgün et al.'s (2007) attempt to reconcile different views on organizational intelligence is not very compelling. Third, this paper makes a methodological contribution. Our approach to assessing the impact of structuration theory is much more analytical and detailed than that of Whittington (1992), Pozzebon (2004), or Jones and Karsten (2008). Hence, our analysis allows for a detailed discussion on how structuration theory has been put to use.

However, our account also has some limitations. First of all, we defined organizational intelligence in a very broad way by including other concepts and notions, such as learning, knowledge, and so forth. Such a broad view disregards that scholars do not consider their field of study (e.g., learning) subordinate to organizational intelligence. Second, the analytical nature of our approach cannot hide the fact that our assessment remains somewhat subjective. For example, to suggest that structuration theory is comprised of 16 basic dimensions is a somewhat arbitrary statement. It is our particular reading of structuration theory that led us to define these dimensions. Other researchers may thus have come up with more or less dimensions. Similarly subjective is our determination of intensity scores. To simplify this step and

reduce valuation arbitrariness, we decided to work only with whole numbers (1, 2, and 3), instead of non-integer scores. Nevertheless, the dividing line between the different intensity scores is a fluid one, since the dimensions we seek to assess in terms of these scores are employed in many different ways, which makes it difficult to draw a clear line between what can be considered a moderate use and what can be considered an intensive use. Finally, our account is fairly complex. Readers are encouraged to view our detailed assessment as a source of inspiration for identifying unexplored territories and discovering different ways to employ structuration theory.

3. Towards a Practice-Based Theory of Foresight in Organizations

Daniel Broger

Abstract: *In this paper, we present a practice-based theory of foresight in organizations. Despite the growing importance of foresight for organizational survival, it has received little attention as a research topic. Furthermore, the field is highly fragmented and characterized by an array of dualisms, such as individual vs. organizational foresight, foresight as an activity/process vs. foresight as a capability, and foresight vs. hindsight. In our view, the primary reason for this is that the topic is severely under-theorized at the ontological level. To provide foresight research with a solid theoretical basis and resolve existing dualisms, we turn to Anthony Giddens's (1976, 1979, 1984) theory of structuration. His 'ontology of the social' is considered as one of the most courageous attempts to integrate disparate views and reconcile dualisms in social theory. However, employing abstract and general social theories such as structuration theory for the development of more substantive theories raises some methodological questions. For example: How do social theory and more substantive (organization) theories relate to one another? What role can social theory play during the theory building process? Regarding the latter, we suggest that organization scholars employ social theories as 'sensitizing devices' in empirical inquiries to develop Mertonian 'theories of the middle range' (see Merton, 1967) or as 'templates,' i.e. as sources of inspiration to formulate substantive theories through disciplined theoretical reflection. The theory presented in this paper is an example of the latter.*

Keywords: *foresight in organizations, theory building, structuration theory, practice view of organizations*

3.1   Introduction

For organizations, anticipating disruptive changes in the external environment has never been more important and more difficult than in today's hypercompetitive markets (D'Aveni, 1994). As markets grow more and more dynamic, organizations must successfully master an ever-increasing level of environmental uncertainty (Lawrence & Lorsch, 1967; Eisenhardt, 1989a). Furthermore, instead of being mere passive recipients of environmental change (Thompson, 1967; Lawrence & Dyer, 1983), organizations must learn to actively shape their environments (e.g., Weick, 1969; Daft & Weick, 1984; Smircich & Stubbart, 1985).

It is surprising that the topic of foresight in organizations has thus far received little attention from organization scholars, since it plays an important role in organizational survival, and given its close relationship to an array of other research topics that have received considerable attention, such as strategy, innovation, and learning. Occasionally, researchers of information-processing in organizations (e.g., Galbraith, 1974; Tushman & Nadler, 1978), environmental scanning (e.g., Hambrick, 1981, 1982; Jain, 1984; Daft et al., 1988; Elenkov, 1997), sense-making (e.g., Weick, 1969, 1993, 1995b; Daft & Weick, 1984; Gioia & Chittipeddi, 1991; Thomas et al., 1993), and other topics have made references to the idea of foresight. However, it has not been treated as a key element in their accounts.

During our literature review, we also discovered that existing research on foresight in organizations is highly fragmented and characterized by several conceptual dualisms, such as individual vs. organizational foresight, foresight as an activity/process vs. foresight as a capability, and foresight vs. hindsight. The main reason for such high fragmentation is that, a decade after Johnston (2001) called for a strengthening of its theoretical basis, the field still lacks a solid ontological grounding. To fill this gap, we present a theoretical account of foresight in organizations that builds on Giddens's (1976, 1979, 1984) theory of structuration. We contend that a practice-based theory of foresight that draws on structuration theory can not only establish a theoretical basis for the field's reintegration and the resolution of conceptual dualisms, but can finally establish foresight as a key topic within organization studies.

Common to all practice accounts is that they seek to grasp the intricacies of organizational life and that they are critical of attempts to grasp organizational phenomena without considering human actors a constitutive element of the phenomena

studied (e.g., Johnson et al., 2007). Furthermore, practice scholars of organizations have criticized organization research for focusing on providing ever-new dehumanized, archetypical models (e.g., process models of strategy formation) that fail to grasp how members of organizations contribute to the constitution of the phenomenon studied. The goings-on in organizations can only be understood by investigating organizational members' day-to-day doings, i.e. their practices.

At a more abstract and general level, social theorists have turned to the notion of practice in their attempts to transcend the limitations of both the structural-functional view (e.g., Talcott Parsons) and the phenomenological-hermeneutic thread of social theory (e.g., Alfred Schütz). What became known as the practice 'school' of social theory was first and foremost developed by three of the most highly regarded social theorists of the last century: French sociologist Pierre Bourdieu (1980, 1990, 1994) with his work on the 'sense et raison practique,' Jürgen Habermas (1981) with his magnum opus on 'communicative action,' and Anthony Giddens (1976, 1984) with his theory of structuration. All three are highly respected for their efforts to synthesize various traditions of thought into one single theoretical framework to overcome not only the disarray of thought after the dissolution of the 'orthodox consensus' in the late 1960s but also many of the conceptual dualisms in social theory, such as structure vs. agency, determinism vs. voluntarism, and others (Appelrouth & Edles, 2008: 683ff.). Despite their shared concern with explaining the grounds of human action, they offer highly unique syntheses.

To develop our practice theory of foresight in organizations, we employ structuration theory (Giddens, 1976, 1979, 1984) as our 'analytical lens' and source of inspiration. Giddens's 'ontology of the social' (Bryant & Jary, 1991: 27) is regarded as the most courageous attempt to overcome dualisms in the field of social theory. In the field of organization studies, his theoretical project has helped redefine entire disciplines, such as accountancy (e.g., Roberts & Scapens, 1985; MacIntosh & Scapens, 1990; Scapens & MacIntosh, 1996), or to establish new specialty topics, such as technology use in organizations (e.g., Orlikowski, 1992) (see Bryant's [1999] overview of the uses of structuration theory). We hope to achieve the latter with regard to the topic of foresight in organizations.

The account that follows is novel in at least two ways. First, although the topic of foresight has been punctually incorporated into practice-oriented accounts of strategy formulation (e.g., Whittington, 1996; Chia, 2004; Jarzabkowski, 2003, 2004) or organizational sense-making (e.g., Weick, 1969, 1993, 1995b) and sense-giving

(e.g., Gioia & Chittipeddi, 1991), we found no publications that have made the social practice of foresight in organizations their primary concern. Our account therefore establishes a new research thread and gives rise to an array of interesting new research questions. Second, employing structuration theory as an 'ontological lens' to develop a practice-based theory of foresight in organizations requires that we are clear about the relationship between social theory and the more substantive theoretical accounts informed by it. While some organization scholars have been explicit about their socio-theoretical stance, we found no account that deals comprehensively with the methodological issues that arise from using abstract social theories to build more substantive theories of organizational phenomena. We thus decided to complement our account with a more encompassing discussion of the different roles social theory can play in organizational theory development.

This paper is organized as follows: First, we review the existing literature on foresight in organizations. Given the plurality of uses of the term 'foresight' and the field's high fragmentation, we look for underlying dualisms and discuss how they relate to the different research streams. Furthermore, we explain why theorizing the topic of foresight from a practice perspective informed by structuration theory can help provide this research area with a firm theoretical basis and eventually bridge the gap between seemingly disparate views grounded in the mentioned conceptual dualisms. In the second part, we review contributions made by organization scholars on the topic of theory building and assess how social theories such as Giddens's theory of structuration can be employed by organization scholars in their theorizing efforts. This part concludes with a brief summary of the basic propositions of building theories informed by Giddens's comprehensive 'ontology of the social.' In the third part, we introduce our novel practice-based theory of foresight in organizations. We present some general characteristics of foresight as practice and an original theoretical account of foresight that lives up to Weber's (1968: 579ff.) call for theoretical adequacy at the levels of meaning and causality. Based on our practice theory of foresight, we then set out to resolve the dualisms in foresight research and to reconcile these previously conflicting concepts. The paper closes with a brief discussion of our propositions and some concluding remarks.

3.2   Research on Foresight in Organizations – A Fragmented Field

Foresight is a key driver of a firm's strategy (Chakravarthy & White, 2002) and thus an important source of competitive advantage (Hamel & Prahalad, 1994). 'Probing into the future' (Andriopoulos & Gotsi, 2006) allows organizations to not only identify relevant trends in the external environment, but also to proactively create new avenues for innovation. Failure to anticipate the future (Reid & Zyglidopoulos, 2004) can severely impoverish firms as they will miss future business opportunities (Hamel & Prahalad, 1994: 29). This is especially the case if disruptive changes that challenge the firm's value proposition and business model (Christensen, 1997) go unnoticed for too long. Foresight failure can be caused by missing or deficient organizational information filters to detect weak signals (Ilmola & Kuusi, 2006) or cognitive biases (MacKay & McKiernan, 2004; Pina e Cunha et al., 2006).

Organization and management scholars have employed the term 'foresight' to denote quite different things. In the early days of management and organization research, the term was primarily used in an elitist-individualistic way. Foresight was seen as a particular trait of the competent manager (e.g., Whitehead, 1933 [1967]: 110f.) or as a top management task (e.g., Drucker, 1954; Stark, 1961). This overly individualistic interpretation was later contrasted by a view that conceptualized foresight as an organizational or collective achievement. While the elitist-individualist view was rather unified in its conception of foresight, the organizational-collective view exhibited considerable conceptual fragmentation. Organizational foresight was seen either as a process (Andriopoulos & Gotsi, 2006; Johnston, 2001), a capability (Tsoukas & Shepherd, 2004a; Major et al., 2001), or a collective accomplishment (Schwandt & Gorman, 2004). Together, the individualistic and organizational views constitute what we call the *cognitive* 'school' of foresight research. In these accounts, foresight is primarily considered a mode of organizational information-processing (Galbraith, 1974; Tushman & Nadler, 1978), sense-making (Weick. 1969, 1995b), and learning (Constanzo, 2004) – either at the individual or at the organizational level.

The cognition stream of foresight research is accompanied by two other bodies of research on foresight, namely the instrumental and the enactment schools of foresight. The *instrumental* thread of foresight research emerged as a result of the need for better tools and methods to incorporate 'future thinking' into organizational planning and decision-making (Mintzberg, 1981). From an instrumental perspective, the term 'foresight' is generally employed as a label for qualitative-hermeneutic

methods of thinking about the future (Reid & Zyglidopoulos, 2004; Fahey & Randall, 1998) which contrasts with the quantitative methods of forecasting which simply project the future by extrapolating previous data. The most prominent of these qualitative 'methods of foresight' is probably scenario planning. Scenarios can serve various purposes. They can be predictive, explorative, or normative (Börjeson et al., 2006). Following forecasting's deterministic view of history, predictive scenarios attempt to anticipate what *will* happen and can thus be considered forecasting's qualitative counterpart. In contrast, explorative scenarios more openly ask: 'What *can* happen?' The goal is to consider the possible effects that events may have on the organization. Finally, normative scenarios ask for the desired future and how it can be realized. These types of scenarios rely on an analytical methodology also known as backcasting. Instead of asking for probable or possible futures, scholars of backcasting suggest that it is better to describe a desirable future and to assess how a particular goal or state can be achieved (Lovins, 1976; Robinson, 1982; Anderson, 2001) by deliberately working towards realizing that desired future. Unlike predictive scenarios, normative approaches to scenario planning do not rely on a deterministic view of the future. The future is rather considered inherently open and something that can be actively shaped.

A third, somewhat underdeveloped strand of research – compared to the cognitive and the instrumental threads – is the *enactment* view of foresight. In the tradition of the constructivist-interpretative movement in organization research, proponents of this view suggest that the future is not predetermined, but rather something that is actively created (Buchen, 1999). Analogous to the environmental enactment view in the strategic management literature (Miles & Snow, 1978; Pfeffer & Salancik, 1978; Smircich & Stubbard, 1985), the enactment school of foresight proposes that members of organizations enact, i.e. construct and create the future. Enactment can take on two basic forms as exemplified by Narayanan and Fahey's (2004) 'invention' and 'navigation' concepts. While invention assumes the future is "fundamentally open and manipulable" (Narayanan & Fahey, 2004: 48), navigation suggests that organizations often 'muddle' their way through (Lindblom, 1959; MacMillan & Jones, 1986) if they inhabit high-velocity environments (Eisenhardt, 1989a) and if they are forced to engage in continuous strategic experimentation (McGrath & MacMillan, 2000) and improvisation (Mendonça et al, 2004). The enactment view thus splits foresight into two different temporal dimensions. While 'muddling through' and 'navigation' are about coping in the near future, invention

relates to the distant future. In order to survive, organizations need to concurrently master both.

A brief note on the problem of terminological confusions rounds off our assessment of the high fragmentation of research on foresight. Scholars concerned with the future as a research topic are often negligent in their use of terminology. Terms such as foresight, forecasting, prediction, anticipation, projection, vision, and so forth, are often used interchangeably and sometimes denote quite different modes of thinking about the future. Such terminological carelessness is particularly blatant in the use of the term 'prediction.' While the term is often employed to describe a mode of thinking about the future which aims to foresee the future as it *will* happen (i.e. in a singular, predictive sense), others have used it in a very broad sense to represent any "statement […] about how the future *might* turn out" (Bell, 1997: 98; emphasis added). This problem of terminological carelessness is consequential since our thinking about the future is invariably bound up with the words we use to describe or assess it. Voros (2005) thus calls for more careful use and a clear delineation of the different terms.

However, the problem of fragmentation cannot be simply resolved by a clearer delineation of terms as philologists suggest. We believe that the high diversity of views is grounded in conceptual dualisms resulting from the under-theorized status of the field.

3.3   Conceptual Dualisms in Research on Foresight in Organizations

Our analysis of the various streams of research on the topic of foresight revealed that the field is characterized by several conceptual dualisms. Interestingly, these dualisms parallel those prevalent and extensively discussed in the field of social theory.

Table 3-1: Dualisms in Foresight Research and Social Theory

Dualisms in Foresight Research	*Dualisms in Social Theory*
Individual foresight vs. organizational foresight	Individual vs. society/collective
Foresight as activity/process vs. foresight as capability	Action vs. structure
Foresight vs. hindsight	Future vs. past

Before we discuss the different types of dualism in more detail, we provide some remarks on social theory in general to clarify why a turn to social theory can help to

resolve them. A very brief overview of the history of social theory unveils the roots of these dualisms and how they were resolved in the practice turn in social theory.

The aim of social theory is to develop universal theories on human social conduct and the constitution of social phenomena. Since the establishment of social theory as a scientific discipline in the mid-nineteenth century, social theorists have been in dispute over the nature of human action and how social phenomena are brought about. Social theorists have primarily defined their views by taking a particular stance on a set of conceptual dualisms, such as agency versus structure, subjectivism versus objectivism, voluntarism versus determinism, and so forth. Although each social theory is unique to some extent, social theorists have traditionally subscribed to one of two basic camps. On the one hand, there are those social theorists who have given primacy to the structural aspects of social life. Advocates of this view conceptualize human conduct as determined or at least constrained by external 'social facts' (e.g., Durkheim, 1895, 1897) or internalized structures, such as shared norms (e.g., Parsons, 1937). On the other hand, there are those social theorists who have assigned primacy to human agency. According to them, human conduct is not determined by some pre-existing structural context, but the structural realm itself is socially constructed by the acting subjects (e.g., Schütz, 1932; Berger & Luckmann, 1966).

Critical of the 'orthodox consensus' grounded in Durkheim's (1895, 1897) and Parsons's (1937, 1951) structural-functionalism which conceptualizes social actors as 'cultural dopes' who respond to external social 'forces' and internalized moral imperatives in an automated fashion, and at the same time discontent with the high fragmentation of field of social theory after of the dissolution of that consensus in the late 1960s, some scholars have turned to the concept of practice to resolve underlying theoretical dualisms. Practice theorists have argued that routine conduct is not only the most prevalent form of activity in our daily lives, but that it is in routine conduct that the amalgamation of agency and structure can be best observed. Moreover, the turn towards practice enabled these social theorists to prove that most of the existing dualisms in social theory are rather conceptual than ontological and that a theoretical reconciliation is not only possible but necessary.

The resolution of conceptual dualisms in practice-based social theory has helped other scholars to reintegrate different research streams in their fields of study. Likewise, we build upon Giddens's (1976, 1979, 1984) 'ontology of the social' to synthesize previous research on foresight in organizations. However, before we can

perform this synthesis, we need to be clear about the underlying conceptual dualisms responsible for the fragmentation of research on foresight in organizations.

3.3.1 Individual versus Organizational Foresight

When Alfred North Whitehead (1933 [1967]) coined the term 'foresight' during a Harvard lecture in 1931, he was referring to a trait of the competent individual business mind (see Tsoukas & Shepherd, 2004b). Two decades before that, Henri Fayol (1916) defined forsight ('prévoyance') as one of the seven key tasks of management. In line with these early engagements with the topic, many researchers have focused on the individual manager to illuminate the human cognitive and psychological dimensions of foresight. Very recently, Pina e Cunha et al. (2006) analyzed the dialectic between managers' 'need to know' and 'fear of knowing.' Others have explored psychological biases of foresight, such as over-confidence and over-simplification (MacKay & McKiernan, 2004) or have elaborated on barriers to foresight, such as 'cognitive freezing' (MacKay et al., 2006) resulting from powerful intra-firm and industry recipes.

The term 'organizational foresight' has been used ambiguously and sometimes even in a misleading way. Some scholars have employed the label 'organizational' only to indicate that their analysis is focused on individuals in organizations. These accounts, however, do not go beyond the analysis of individual foresight. Other scholars have recognized the existence of foresight's organizational aspects that transcend foresight on the individual level. In these accounts, organizational foresight is conceptualized either as a process (e.g., Andriopoulos & Gotsi, 2006; Johnston, 2001; Müller, 2008) or as an organizational capability (e.g., Tsoukas & Shepherd, 2004a; Major et al, 2001).

Despite an extensive literature search, we found no publication that comprehensively deals with the interrelationship between the individual and organizational dimensions of foresight. This is a bit surprising since organization scholars have elaborated on the individual-organizational link in other research areas, such as organizational learning (e.g., Huber, 1991; Kim, 1993; Crossan et al., 1999), knowing (Nonaka, 1994; Nonaka & Takeuchi, 1995; Tsoukas & Vladimirou, 2001), memory (Walsh & Ungson, 1991) or intelligence (Akgün et al., 2007).

In social theory, this dualism is resembled by the individual-society distinction. The question is: Is society or are social phenomena merely the aggregation of the doings of individuals or does the former exhibit certain emergent features or qualities of its own which cannot be attributed to individual actors?

3.3.2 Foresight as Activity/Process versus Foresight as Capability

The second dualism found in the literature on organizational foresight refers to the following question: Is foresight a bundle of specific activities organized as a process (Andriopoulos & Gotsi, 2006) that is analytically distinguishable from other organizational activities or processes, or is it the "[embedded] ability to cope with the future [, i.e.][…] the institutionalized capacity of unobtrusively responding to an organization's circumstances so that the organization may get around in the world" (Tsoukas & Shepherd, 2004a: 138)? For the latter, scholars have also employed the term 'foresightfulness' (Tsoukas & Shepherd, 2004a, 2004b). Foresightfulness is regarded as an organizational skill that emerges when "future-oriented thinking ceases to be a specialized activity undertaken by experts and/or senior managers […], but acquires the status of expertise that is widely distributed throughout the organization and is spontaneously put into action" (Tsoukas & Shepherd, 2004b: 10). The capability view suggests that foresight is a pervasive background skill that emerges when social actors form an intuitive and coherent relationship between the past, the present, and future (Tsoukas & Hatch, 2001).

Some scholars have argued that establishing a foresight process may be a prerequisite for organizations active in high velocity environments (Johnston, 2001). However, how far such a process can constitute a source of competitive advantage remains unanswered. Research on foresight as a capability has suggested that foresightfulness can in fact constitute a source of competitive advantage especially if foresight becomes a firm's core competence (Major et al., 2001) or if it assumes a key role in an organization's dynamic capabilities (Tsoukas & Shepherd, 2004a; on the topic of dynamic capabilities see also Helfat & Peteraf, 2003; Teece et al., 1997; Eisenhardt & Martin, 2000).

On the level of social theory, the distinction between foresight as an activity/process and foresight as a capability mirrors the dualism between action and structure if we understand a capability as an idiosyncratic set of 'rules and resources' (Giddens, 1984:

17). In this context, the term 'structure' is to be understood in a broad sense as it includes genetic dispositions, norms, habits, skills, and so forth. For many years, the structure-action dichotomy has been – and still is – one of the most debated issues among social theorists. The question is: How does agency and human conduct relate to the structural context and vice versa?

The first and the second dualisms are interrelated. Both, foresight as an activity/process and foresight as a capability can be identified on the level of individual actors or the level of social collectives, i.e. organizations. At the individual level, members of an organization may engage in foresight-related activities, such as scenario planning. Moreover, they can exhibit the personal trait or capability of being and acting foresightful in their day-to-day conduct. Similarly, organizations may have defined or even institutionalized particular activities or standardized processes related to foresight or they may display a collective capacity for rendering organizational activities foresightful.

In addition to these more obvious dualisms, we found that scholars of foresight have relied on different conceptions of time and different assumptions of the relationship between the past, present, and future. This discordance is expressed in our third dualism.

3.3.3 Foresight versus Hindsight

The distinction between hindsight and foresight is rooted in different assumptions about the nature and possibility of knowledge of the past, the present, and the future. It is generally accepted that the future, unlike the past, cannot be known (MacKay & McKiernan, 2004). Much of the contemporary confusion surrounding the epistemology of the *Futures Studies* discipline relates to this philosophical problem. A series of questions arise from this epistemological asymmetry: Is there one future or are there several futures? How can we become knowledgeable about the future? In what regard does knowledge of the future differ from that of the past? Is foresight linked to or independent from hindsight? This list can easily be extended. Since it is not within the scope of this paper to provide answers to these complex philosophical questions, we will only focus on issues that have troubled foresight scholars.

By drawing upon literature on neurophysiological and socio-psychological research, MacKay and McKiernan (2004) investigate the link between hindsight and

foresight in scenario building in organizations and discuss possible biases that affect this link. They argue, for instance, that people tend to overestimate *ex post* the likelihood that an event could have been predicted *ex ante*. This 'hindsight bias' results from the fact that hindsight and foresight differ in the information available to the observer (Fischhoff, 1975; cited in MacKay & McKiernan, 2004). A second bias is 'creeping determinism' (Fischhoff, 1975), which denotes the human tendency to gravitate towards determinist explanations of history. People often believe that events could not have happened otherwise. Finally, MacKay and McKiernan (2004) refer to the 'foresight bias' which results from a shallow perception of history and occurs when we take our knowledge of and thoughts on the past for granted. This bias often leads to an over-simplified view of the future. MacKay and McKiernan (2004) argue that all three types of biases may lead to over-confidence, faulty reasoning, and 'logical path-dependencies' into the future, limiting the possible futures that humans can anticipate and envision. Managers must therefore look for effective means to de-bias foresight in their organizations.

The topic of the continuity versus the discontinuity of history and the conceptualization of the relationship between the past and the future is not unique to foresight research, but has also been a central theme in other areas of organization and strategy research. For example, innovation researchers have analyzed path dependencies (Arthur, 1990; Sydow et al., 2009) or explored the distinction between incremental and radical innovation (Dewar & Dutton, 1986) and their impact on strategy and organization (Ettlie et al., 1984). The term 'path dependency' has sometimes been defined simply as 'history matters' (e.g., Arthur, 1989). Mahoney (2000) defines path dependency as "historical sequences in which *contingent* events set into motion institutional patterns or event" (p. 507; emphasis added). Moving from a simplistic-causal notion of path dependency to the recognition of the contingency of events renders the relationship between the past and future indeterminate.

How we think the future connects to the past influences not only how we look back in time, but also how we look forward. This becomes clear when we look at the various tools of foresight and the different past-future relationships they incorporate. While instruments of quantitative forecasting assume that the future basically resembles the past and that the future can be predicted or at least approximated, qualitative-hermeneutic techniques, such as scenario building take a much more open approach to the past-future relationship. As a consequence, different perceptions of uncertainty and assumptions about the past-future relationship require different tools

of foresight (Dreborg, 2004). While forecasting may prove useful for anticipating developments in a stable environment with low uncertainty, it may not be the best tool in a high-velocity environment where uncertainty is high. In this case, a more open approach to the future is needed that recognizes the possibility of discontinuity between the past, present, and the future (Courtney, 2001). The perception of uncertainty and openness of the future depends considerably on the time horizon. In the near term, the future often appears singular and closed, i.e. determined. When we assume a long-term view, the future becomes much more open and contingent.

In social theory, different conceptions about the relationship between the past and the future as well as the perception of history as either determined or contingent are closely intertwined with the structure-agency dualism. While social theorists who give primacy to structure (e.g., functionalists, structuralists) often adopt a deterministic stance towards the future, those who give primacy to agency (e.g., phenomenologists) often assume that the future is open and indeterminate. Practice theorists concerned with resolving this dualism of agency versus structure take an intermediate position on this, advocating that history and the future are neither radically open nor hermetically closed. Although most day-to-day conduct is repetitive and thus also predictable with high levels of confidence, the course of events is not somehow predetermined by external or internalized 'forces.' Social actors can always choose to 'act otherwise' (Giddens, 1984: 14) and they can never fully control all the consequences of their actions. This implies that practice scholars view the future as emerging and open to intended and unintended consequences of purposive action.

Practice scholars, especially Anthony Giddens, argue that these dualisms can be transcended because they are principally conceptual and not ontological. We later return to this topic when we attempt to resolve the above-mentioned dualisms based on our practice-based theory of foresight in organizations.

3.4   Towards a Practice-Based View

Although the practice turn in social theory gained momentum after the dissolution of the structural-functionalist consensus in the late 1960s, the practice thread of social theory dates back even further in the history of socio-theoretical thought. The practice view has its intellectual roots in an array of streams, such as the American philosophical pragmatism of Dewey (1922) and Pierce (1934), Schutzian

phenomenology (e.g., Schütz, 1932), the social psychology of Mead (1934), later Wittgenstein's (1953) ordinary language philosophy, Goffman's (1959) dramaturgical interactionism, Berger and Luckmann's (1966) social constructivism, and the symbolic interactionism of Blumer (1969). Initially confined to the area of social theory, the practice view quickly spilled over into other areas of the social sciences. From the late 1970s onwards, ideas forwarded by newer social theorists of practice (Bourdieu, Giddens, and Habermas) found their way into strategy and organization research as scholars aimed to advance their understanding of the goings-on in organizations by adopting their accounts as interpretative-analytical lens. As a consequence, the focus gradually shifted from offering ever new 'de-humanized' frameworks of organizations towards detailed explorations of organizational members' day-to-day conduct.

In this section, we summarize the key developments that led to the practice turn in social theory and how the practice approach inspired new research avenues in the fields of organization, strategy, and management research. In addition, we assess whether the practice-based view has informed research on foresight in organizations.

3.4.1 Beyond Dualisms – The Practice Turn in Social Theory

As previously mentioned, the discipline of social theory has historically been divided into two broad camps. On the one hand, there were those who worked in the tradition of the founding fathers of sociology, Auguste Comte and Emile Durkheim, who aimed to establish sociology as 'physique sociale' (Comte, 1825) vis-à-vis the natural sciences. Following the naturalistic model of science, they argued that the purpose of sociology is to discover 'social facts' (Durkheim, 1895) and to formulate laws which allow those in power to intervene in the social realm. Members of society were regarded merely as 'marionettes' determined by external social forces. In the search for the driving forces that explain how order arises from the acts of individuals – known as Hobbes' problem of order –, it was Parsons (1937, 1951) who advanced Durkheim's work in the first half of the twentieth century. His seminal works led to the establishment of structural-functionalism as the dominant mode of thinking about the social realm. Parsons suggested that in order to explain the existence and nature of social phenomena, one only needs to unveil the shared and internalized social norms that determine individuals' conduct. In his account, norms acted as functional claims that allowed for a coherent and plausible explanation of social phenomena.

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From the early twentieth century onwards, a second camp of social theory developed whose proponents disagreed fundamentally with the views held by Comte, Durkheim, and their followers. These scholars stressed that humans differ fundamentally from the impersonal objects of the natural realm. Social actors are not 'dopes' who automatically react to some sort of social force. Humans not only interpret the world around them (Schütz, 1932) but reality itself is socially constructed (Berger & Luckmann, 1966). Building upon Husserl's (1901) existential phenomenology, actors are seen as active agents playing a key role in the constitution of reality. As a consequence, social inquiry is not about explaining the actors' conduct by reference to some sort of social force, but about gaining a deep understanding ('Verstehen') of how social actors construe and enact their world-view.

The following table summarizes some of the main differences between the structural-functionalist thread and the interpretative thread of social theory:

Table 3-2: The Two Camps of Social Theory and Their Key Differences

	Structural Functionalism	*Phenomenology*
Human conduct is …	determined	voluntary
Reality is …	objectively given	subjectively constructed
In analysis, primacy is attributed to …	structure	agency
The social and the natural sciences are …	very similar	radically different
The primary task of social science is to …	explain	understand

The dissolution of the structural-functionalist consensus in the late 1960s has left the discipline of social theory in a state of disarray. There were mixed reactions to this. There were those who welcomed the multitude and incommensurability of different perspectives. They believed that the social realm may be too complex to be adequately represented in a single social theory. Then there were those who retreated back into structural functionalism or newer forms of Marxism with the goal to keep the old consensus alive through the import of certain aspects form the interpretative school of social theory. Finally, there were those scholars who embraced the multitude of perspectives and social theories but set out to find a 'neutral ground' from where supposedly incommensurable views could be synthesized by reworking the most basic concepts, such as agency, structure, and so forth. Practice scholars of social theory followed the latter approach.

The most prominent exponents of this 'third way' were Pierre Bourdieu (1972, 1980), Jürgen Habermas (1981), and Anthony Giddens (1976, 1984). Their unique practice accounts have not only helped to alleviate the crisis in social theory, but have opened up new, fruitful avenues for thinking and theorizing about the social realm. By regarding social practice as the 'primary generic social thing' (Schatzki et al., 2001: 1), these authors set out to transcend the dualisms established by earlier theories which employed structures, systems, meaning, life-world, events or actions as their primary objects of inquiry. Strongly influenced by Heidegger's (1927) existentialism and his proposal that human conduct and interpretation are mutually constitutive on the one hand and the later Wittgenstein's (1953) notion of 'rule following' on the other, practice theorists aimed "to free activity from the determining grasp of objectified social structures and systems, to question individual actions and their status as the building-blocks of social phenomena, and to transcend rigid action-structure oppositions" (Schatzki et al., 2001: 1).

Although Pierre Bourdieu, Jürgen Habermas, and Anthony Giddens have all proposed a practice view and, to some extent, drawn upon the same classics of social theory (e.g., Martin Heidegger, Alfred Schütz, later Wittgenstein), their accounts are highly unique. Not only have they melded the work of classical social theorists in different ways but each of them has focused on a different substantive concern. While Bourdieu focused on the reproduction of class relations and Habermas on the prospects of democracy in the modern world, Giddens aimed to explored the effects of modern society on the nature of trust, risk, and the self (Appelrouth & Edles, 2008: 684). It is beyond the scope of this paper to elaborate on the commonalities and subtle differences between the accounts introduced. What is of importance here is that the theory of structuration is the only account which was not also politically motivated. In addition, Giddens avoids Bourdieu's relapse into some form of 'genetic determinism' as well as Habermas's argumentative complexity and socio-political call. His primary concern was to supply a well elaborated 'ontology of the social' which transcends the conceptual dualisms found in social theory at that time.

3.4.2 The Rise of the Practice View in Organization Research

Studying organizational members' daily activities has a long history in organization and management research. Fayol (1916) was among the first to study what managers

actually do. In his general theory of management, Fayol (1916) suggests that 'doing management' consists of six primary tasks: planning, organizing, commanding, coordinating, controlling, and – interestingly – foresight ('prévoyance').

In the 1950s and 1960s, research on managers' roles, tasks, and conduct experienced a first peak. It was also during this time that Peter Drucker, one of the most prolific writers on management, published his seminal work entitled '*The Practice of Management*' (1954). While most research was focused on the top management level, the build-up of middle management levels in large corporations urged researchers to extend their research to this new caste of managers. Horne and Lupton's (1965) explorative studies on middle managers' work activities are noteworthy in this regard.

Fayol's and Drucker's early management theories have inspired many researchers to investigate what managers actually do. However, many of these accounts were of a descriptive nature and understanding remained largely superficial until the 1970s (Mintzberg, 1971). Inspired by Fayol's account but critical of the high superficiality of his descriptions of managerial work, Mintzberg (1970, 1971, 1973) conducted a series of in-depth empirical studies on the work of managers. In his article '*Managerial Work: Analysis from Observation*' (1971), Mintzberg suggests that managers perform ten different roles which can be grouped into three categories: interpersonal, decision-making, and information-processing. Since managers eventually operate at the 'heart of the system' and adopt a multitude of roles, he concludes that their work is characterized by "variety, discontinuity, and brevity" (Mintzberg, 1971: 97). Hence, Mintzberg's inductive studies of managers' daily activities gave Fayol's 'types of managerial work' new life and substance.

While Mintzberg's early studies aimed at grasping managerial work in general, he later concentrated on the exploration of 'strategy work' in organizations. His article on '*Patterns of Strategy Formation*' (1978) is a milestone in strategy research. Mintzberg argues that the then dominant view, which depicts strategy as a deliberate plan that informs decision-making, is flawed since it cannot explain the many empirical instances in which a deliberate strategy remains unrealized or an unintended strategy becomes realized. He thus suggests that strategy should be regarded as a "pattern in a stream of decisions" (Mintzberg, 1978: 934), since this will enable strategy researchers to allow for both deliberate and emergent aspects of strategy (Mintzberg & Waters, 1985). His study can thus be considered one of the first accounts of the strategy-as-practice thread of research.

Since the late 1970s, practice-oriented management and organization research has accelerated rapidly. Researchers have investigated practices involved in sense-making (Weick, 1969, 1993, 1995b), sense-giving (Gioia & Chittipeddi, 1991), storytelling (Boje, 1995), and issue selling (Dutton et al., 2001) to name only a few. Despite this expansion of the practice view into ever new sub-areas of management and organization research, it is the strategy-as-practice field that retained most of the scholarly attention. Since the late 1980s, the practice thread of strategy research has been able to establish itself as a specialty research stream within the strategy field (see Mintzberg, 1987; Hendry, 2000; Jarzabkowski, 2000, 2003, 2004, 2005; Jarzabkowski et al., 2007; Jarzabkowski & Spee, 2009; Whittington, 1996, 2002, 2003, 2004, 2006, 2007; Samra-Frederichs, 2003; Johnson et al., 2007).

The increasing use of practice approaches to organization and management is rooted in concerns about the gap between the plethora of scientific theories of organizational phenomena and a lack of understanding what members of organizations actually do (Jarzabkowski, 2004: 529). Theory and practice differed considerably. Many of the theories introduced were superficial and tended to analytically slice organizational phenomena into ever smaller pieces. The resulting theoretical fragmentation contrasted with the day-to-day lives of organizational members who experience reality as a coherent whole. Being a lay actor requires an "instant assessment of the whole" (Bourdieu, 1990: 81) and a practical feeling ('*sens pratique*') for what will happen in the imminent future. By introducing theories of practice, scholars hoped to provide accounts that accommodate for this 'sense of wholeness' but also to reconcile existing research.

Reed (1992) argues that employing a practice stance in the analysis of organizations allows for a synthesis of the structural focus of systems and power perspectives and the processual focus of negotiated order and cultural approaches to interpreting organizations. However, this does not mean that these variegated approaches can simply be combined. In fact, both sides need to be reworked in order to be synthesized. It is in this reconciliation that we see the advantage of turning to social theories of practice. The conceptual reworking of notions, such as agency, power, structure, and so forth is a complex matter, which requires profound theoretical reflection on the ontological level. It is not that organization scholars could not reflect deeply upon these issues by themselves; it has been the main task of social theorists to do just this. Turning to the accounts of social theorists of practice provides organization scholars with a rich source of 'sensitizing concepts' (Blumer, 1954;

Giddens, 1984) which can be fruitfully employed by organization and management scholars aiming to formulate original theories that synthesize different views.

Our literature review revealed that organization scholars occasionally referenced social theorists of practice, such as Bourdieu, Habermas, and Giddens. However, the question of whether organization scholars informed by social theories of practice have fully embraced the analytical and explanatory capacity of these comprehensive ontologies of the social still remains open. We believe that most scholars have made too vague and too selective references to the works of social theorists of practice to provide their research with a solid theoretical basis. In fact, only few organization and management scholars have dealt with the complex implications of employing these practice-oriented social theories.

Regarding structuration theory in particular, among the first to more comprehensively apply Giddens's social ontology in the context of organizations were Ranson et al. (1980). They proposed a practice view of the organizational structuring by building upon three of structuration theory's core conceptual ideas: meaning construction in interaction, the role of power, and the constraining and enabling effect of the structural context. This first use of structuration theory was followed by an increasing adoption of structurationist ideas by scholars from many different research areas, such as accounting (e.g., Roberts & Scapens, 1985; MacIntosh & Scapens, 1990; Scapens & MacIntosh, 1996; Boland, 1996), information-processing and information technology use (e.g., Orlikowski, 1992; DeSanctis & Poole, 1994), discourse (e.g., Heracleous & Hendry, 2000), communication (e.g., Yates & Orlikowski, 1992), intelligence (e.g., Akgün et al., 2007), learning (e.g., Berends et al., 2003), knowledge (e.g., Hargadon & Fanelli, 2002), strategy and transformation (e.g., Sarason, 1995; Pozzebon, 2004), interorganizational networks (e.g., Sydow & Windeler, 1998), and managerial agency (e.g., Whittington, 1992). Our theory of the social practice of foresight in organizations presented later in this paper complements this growing body of literature.

3.4.3 Practice Accounts on Organizational Foresight

Foresight is an elusive and often miscomprehended concept (Major et al. 2001: 91). According to Slaughter (1995), "[f]oresight is *not* the ability to predict the future […]. It is the human attribute that allows us to weigh up pros and cons, to evaluate different

courses of action and to investigate possible futures on every level with enough reality and meaning to use them as decision making aids […]. The simplest possible definition [of foresight] is: opening to the future with every means at our disposal, developing views of future options, and then choosing between them" (p. 1; emphasis added). Although this definition was not forwarded by a practice scholar, it fits well with a practice view of foresight for several reasons. First, according to this definition, foresight is considered a fundamental feature of being human. Second, it is something that has more to do with doing than with being. This is indicated by the many verbs used in the definition (e.g., weigh up pros and cons, evaluate courses of action, etc.). Finally, foresight combines activities at various levels of consciousness. While some activities take place on the discursive consciousness level, others are done tacitly, that is, they take place on the level of humans' practical consciousness.

Practices are inherently social. Some scholars have thus conceptualized foresight as a collective enterprise (Schwandt & Gorman, 2004). However, the attribute 'collective' has been employed in two complementary yet distinct ways: in a constructivist and in a practice sense. Proponents of a constructivist view of foresight in organizations have suggested that members of the organization collectively *construct* 'images of the future.' For example, Seidl (2004), revisiting Ansoff's (1975) notion of 'weak signals,' suggests that signals are rather socially constructed than actually 'out there' and perceived. Furthermore, Slaughter (2002) argues that a shift from forecasting and scenario building to a social constructivist view of foresight entails also a methodological paradigm shift. The aim is not to create handy theoretical frameworks for foresight (e.g., a process model of technology foresight), but to explore the micro-processes involved in the social construction of images of the future.

In addition to the social constructivist view of foresight, there is the 'collective coping' or 'collective foresightfulness' view of foresight. Foresight is a collective organizational skill or accomplishment that emerges when organizational members build a coherent relationship between the past, present, and future; that is, between memories of the past, attention, and expectations (Tsoukas & Hatch, 2001; Weick & Roberts, 1993; Tsoukas & Shepherd, 2004a, 2004b). While to some extent linked to the constructivist view of foresight, the coping view – having its root in Heideggerian existentialism and Dreyfus' (1991) influential commentary on Heidegger's works – differs from the former in its strict orientation towards the primacy of practice (Stern, 2000). In these accounts, however, practice is not seen as the routine doings of social actors but as a skill, i.e. a disposition to perform particular types of activities with high

competence. There are a few social theorists of practice who have tried to defend the view that practice is essentially a skill (e.g., Turner, 1994). However this view on practice has not attracted much support from the broader community of social theorists.

In this paper, we introduce a practice theory of foresight in organizations which goes beyond existing constructivist accounts and the coping view of foresight. With regard to the first, our account is only partially a social constructivist one. In our theory, we complement social constructivist dimensions of foresight with other aspects, such as the enabling and constraining effects of the structural context and an analysis of the role of power in foresight. With regard to the latter, our theory accounts for the existential dimension of foresight but does not stop there. We fuse existential aspects with the constructivist and interactionist dimensions of foresight to provide a general theory of the social practice of foresight in organizations.

Before we present our practice theory of foresight in organizations and explain how our structurationist account transcends existing dichotomies in research on foresight, we elaborate on what constitutes a 'good' theory, the role of social theory in organizational theory building, and the implications of adopting structuration theory as a 'template' for building more substantive theories. While the first of these three topics has received considerable attention in the past (e.g., Whetten, 1989; Bacharach, 1989; Sutton & Staw, 1995; Weick 1995a), scholars have been silent about the other two. The following section aims to finally fill this gap.

3.5   Theorizing Structuration in Organizations

In this section, we elaborate on some elemental aspects of building theories of organizations informed by social theory. We first discuss some general principles of theory development and the proposed characteristics of 'good' theories in the field of organization research. Subsequently, we explore the general relationship between social theory and more substantive organization theories. We argue that social theories can be 'put into use' by organization and management scholars in two basic ways: first, as a 'sensitizing device' (Blumer, 1954) in empirical research and, second, as a template for disciplined theoretical reflection. If used as a sensitizing device, a social theory can support the formulation of what Merton (1967) calls 'theories of the middle range.' If used as a template for disciplined theoretical reflection, social theories can

be substantiated by applying them *en bloc* or in part to a topic of interest. As a result, the substantive theory developed resembles the social theory's explanatory logic. By clarifying the relationship between social theory and intermediate theories, we offer some guidance for the more deliberate and confident use of social theories in building meso-level theories of organizational phenomena. We conclude this section by supplying some basic principles of using Giddens's theory of structuration in the development of substantive accounts of organizational phenomena. We provide a synopsis of the role Giddens claimed his theory can play in the development of more substantive, meso-level theories of organization.

3.5.1 Organization Theories – Some Principles of Theorizing

Since the establishment of organization studies as a scientific field, organization scholars have been prolific in introducing ever new theoretical accounts on a broad array of topics. As a reaction to the large variety of accounts introduced under the label of 'theory,' the *Academy of Management* published a first special topic forum on theory development in 1989, followed by a second one in 1999. A next one will be published in April 2011. While some contributors have focused on exploring the evaluative criteria of 'good' theory as an end-product, others have proposed process models of theory building to make the task of theory building more guided and deliberate. The first of these two groups has offered checklist-like enumerations of the 'building blocks' of theories (e.g., Whetten, 1989) or explicated criteria employed by editors and reviewers of well-respected journals on organization, management, and strategy to evaluate whether an article constitutes a theoretical contribution (e.g., Bacharach, 1989). By making these evaluation criteria explicit, the contributors hoped to spur theorizing efforts among organization scholars and strengthen their theory development skills (e.g., Van de Ven, 1989).

Contributions that focus on theory content conceive theory as a fixed category or end-product that must meet particular qualities. On a general level, Whetten (1989) serves as a good exemplar of this tradition of thought. He argues that good theoretical accounts provide answers to four basic questions: 'what?'; 'how?'; 'why?'; and 'who/where/when?'. The first of these four questions – 'what?' – asks for the elements (variables, constructs, and concepts) to be included in the theory. Any theoretical proposal must find a good balance between being comprehensive and parsimonious. A

theory should comprise all factors relevant to the subject matter while not being too cluttered with factors that contribute only little explanatory value. The second question – 'how?' – enquires about the proposed relationship between these elements. By making explicit the patterns between the factors included, the set of theory elements becomes ordered. Causality, Whetten adds, is only one possible form of relationship between factors. Together the elements of a theory ('what?') and their relationships ('how?') constitute a theory's domain or subject. Moreover, authors of theories should explicate the underlying logic of a theory by answering 'why'-questions. Providing explanations for why particular elements were included while others were left unconsidered, and why the elements interrelate as proposed adds the necessary 'theoretical glue' (Whetten, 1989: 491). It is first and foremost by answering these 'why'-questions that propositions forwarded are rendered plausible and intelligible. Scholars of theory building generally agree that the diligent answering of 'why'-questions is a key aspect that distinguishes theory from 'near theory' accounts (e.g., Sutton & Staw, 1995; Eisenhardt, 1989b). While spelling out the 'whats' and 'hows' of a theory provide descriptive value, it is the elaboration of 'why'-questions that provides a theory with explanatory power and that allows peers to lend credence to claims made. Finally, by attending to questions such as 'who?,' 'where?,' and 'when?,' the originator of a theory establishes the necessary boundaries of his theoretical account. It is generally agreed, that for a theory to be plausible and credible, it must comprise a realistic account of the limits of its validity.

A central topic in the theory content debate is whether theory is to be regarded as a category that should be delineated from other types of accounts that only approximate theory but do not fulfill all requirements to count as such. For example, Sutton and Staw (1995) argue that references, data, variables, diagrams, and/or hypotheses should not be regarded as theories since they lack the explanatory moment which is constitutive of theories. However, other scholars of theory building are more critical about the usefulness of the 'theory-as-a-distinct-category' approach. Their main point of critique is that such a view regards theory as something static. They emphasize that theories usually have the status of provisional accounts as they are the result of 'interim struggles' (Weick, 1995a: 385). The high frequency of publication titles including '*Toward a Theory of …,*' '*Conceptual Framework for …,*' and '*Model of …*' are indicative of this (Runkel & Runkel, 1984: 129f.; cited in Weick, 1995a). Moreover, if most theories are in fact 'interim struggles,' they represent a state on a continuum rather than a category (Mohr, 1982: 6). Consequently, advocates of the

'theory-as-a-continuum' view abstain from offering checklist-type accounts on the constitutive elements of theory. Instead, they focus on discussing and improving theory building as a scientific activity. Their concern is to develop theorizing procedures that result in better theories. Weick's (1989) claim that "[t]heory cannot be improved until we improve the theory process" (p. 516) serves as a maxim for all those who have made the process of theory building the primary subject of their study.

One of the most prominent formal process models of organizational theory building is Weick's (1989) conception of theorizing as 'disciplined imagination.' His process model depicts theory building as an evolutionary process that unfolds analogously to artificial selection. Weick argues that organization researchers can significantly improve their theoretical accounts by deliberately creating variety through imagination and the subsequent application of disciplining measures. The selection criteria and filters applied to the variety introduced, he adds, are not fixed but subject to the process of disciplined imagination themselves. According to Weick (1989), the quality of a theoretical account can be gradually increased through a deliberate process of 'trial and error.' The resulting theories tend to be fresh, plausible, and interesting.

Weick's (1989) process model of theory building is recognizably a Popperian one. As a relentless critic of the then predominant verification mode of theory validation, Popper (1963) argues that progress in scientific knowledge is better achieved by forwarding 'bold conjectures' and subsequently submitting these conjectures to the selective pressures of falsification. However, while adopting such a 'trial and error' mode of theorizing may bypass some basic inferential problems of the verification mode, choosing appropriate criteria for refutation/selection is not an easy and unbiased task. Which criterion/criteria should determine whether an idea or theoretical conjecture is retained or refuted? Answers to this question vary considerably. Proponents of the experimentalist strand of theory testing advocate for rigorous logical/internal *and* empirical/external validation as the primary selection mechanism in theoretical inference (e.g., Campbell & Stanley, 1966; Cook & Campbell, 1979; Shadish et al., 2002). According to Campbell (1986), validity "must come from the contribution of the referent of belief to the selection processes" (p. 118). In contrast, Weick (1989) contends that establishing the internal and external validity of a theoretical claim might not be the most important activity to be carried out by social scientists if the goal is to propose new and bold conjectures. Instead, he proposes that interest and plausibility are legitimate and often more useful measures

for the selection and retention of ideas in the process of theory building (for more on selection criteria, see Davis [1971]; or for the 'soft' selection criteria in organization research, see for example, Daft [1984] and Lundberg [1976]).

During the iterative process of developing our theoretical account on the social practice of foresight in organizations, we repeatedly consulted Whetten's (1989) and Bacharach's (1989) criteria of 'good' theory in order to assess the completeness and quality of our account. Weick's (1989) 'disciplined imagination' model of theory building served as a basic template for our theory building process. New ideas were constantly challenged by querying whether they are plausible and interesting. However, for drafting a *structurationist* theory of foresight in organizations, we turned towards Giddens's socio-theoretical framework – not only for inspiration but also as our primary means for refuting ideas (e.g., free-floating foresight; irrelevance of context; etc.). A broad review of the extant body of literature on foresight provided a second source of imagination and selection. Questions such as: 'Have other foresight scholars already thought of this?,' and 'How have they conceived of the relationship between x and y?' allowed us to relate our ideas and conjectures to existing findings on foresight.

Employing structuration theory as our primary source of imagination and selection in the theorizing process raises an array of issues that need further clarification. First we need to be clear about the general relationship between abstract social theories and the more substantive, meso-level theories of organizational phenomena that resemble the basic logic of a particular social theory. Second, we need to clarify the requirements and implications of using Giddens's theory of structuration as a source of inspiration in theory building efforts.

3.5.2 On the Relationship Between Social Theory and Organizational Theories

Social theories, such as Giddens's theory of structuration are abstract and general accounts on the nature of human actions and the constitution of social life. The purpose of social theory is to provide an overall theoretical frame for interpreting and explaining human conduct and the constitution of social phenomena. In order to theorize about social life in general, social theory employs abstract concepts, such as agency, structure, and power. The aim is to formulate universal propositions about human conduct and social phenomena.

Generally, it is the high level of abstraction and generality that lends social theories their broad applicability and explanatory power. As a consequence, these theories are quite distanced from the realm of empirical particulars. Empirically oriented sociologists, such as Robert K. Merton (1957) are critical of the 'glaring divorcement' of social theory from the empirical realm and regard this as a basic deficiency of social theory (see Blumer, 1954). Critics of social theory argue that the high level of generality renders these accounts too indeterminate to be of much value to empirical research (see e.g., Gregson's [1989] critique of structuration theory).

In his seminal article '*What is Wrong with Social Theory?,*' Blumer (1954) reviews the main threads of criticisms raised against social theory (e.g., the dominance of the exegetic vis-à-vis the empirical mode of theory development) and against its relevance to the conduct of empirical inquiries (e.g., its lack of direct facilitation of empirical investigation). He argues that what critics regard as deficiencies of social theory may in fact be idiosyncrasies rather than shortcomings. The distanced character of social theory is bound up with the nature of its concepts. He adds that the concepts of social theory are distressingly vague and may, at best, only allow for rough empirical identification (Blumer, 1954).

It is beyond the scope of this paper to elaborate on all these alleged deficiencies of social theory. To clarify the role of social theory in theory development, we focus on what is called the *underdetermination problem* of social theory. We believe that this will allow us to define social theory's role not only in the conduct of empirical inquiries but in the development of substantive theories in general. Originally, the term 'underdetermination' has referred to claims about the relation between theory and empirical evidence. The underdetermination hypothesis basically suggests that any type of theory – highly abstract or more substantive – is underdetermined by empirical facts, meaning that mutually incompatible theories can "enjoy the same relation to any given body of evidence" (Laudan, 1998: 527). Thus, there is always the chance of a rival theory that is also consistent with the evidence at hand. Quine's (1960) thesis on the 'indeterminacy of translation' illustrates the core of this problem. In his analysis of a linguist attempting to grasp a foreign language by means of inductive reasoning, he convincingly argues that different systems of hypotheses – that is, 'translation schemas' or theories – can be made to match the totality of speech-acts. Hence, the translation of observed speech-acts is inherently indeterminate.

Obviously, the further removed a theory is from empirical particulars, the more the underdetermination is aggravated. Different social theories can rather easily be

made to fit with the same set of empirical data. Consequently, it becomes almost impossible to judge whether one social theory is explanatorily superior to another one because they may both be able to provide a coherent and conclusive explanation for the same empirical phenomenon. Traditionally, scholars have followed two different approaches to solve this problem. On the one hand, they have attempted to reduce the conceptual distance between highly abstract social theories and empirical particulars by specifying the concepts of a particular social theory in order to render it more directly employable for empirical inquiry (see Stones [2005] with regard to structuration theory). On the other hand, they have stressed the necessity of such abstract and general socio-theoretical accounts and called for the development of more substantive, meso-level theories informed by social theory. While the first approach focuses on modifying social theories to lessen their level of abstraction and generality, the second advocates the introduction of an intermediate theoretical layer of meso-level theories. The term 'meso' (from the Ancient Greek word '*mésos*' for 'middle') already indicates that these theories are located between the realm of highly abstract and general social theories on the one hand and the domain of empirical particulars on the other. Their explanatory scope transcends the single empirical event but is less ambitious than that of social theory. Importantly, both approaches to alleviating the problem of the underdetermination of social theory have argued against the dismissal of social theory, but have supported its use in building more substantive theories. While the goal of the first approach is to render the concepts of social theory more concrete and empirically 'testable,' the second retains the abstract and general status of social theory and focuses on specifying its relationship vis-à-vis more substantive accounts and how the latter can be informed by social theory. We favor the second of these approaches for two reasons: First, the task of engaging in the formulation of abstract and general social ontologies is retained as a necessary one; and second, the 'substantiation' of a particular social theory is done in relation to a particular subject matter or topic rather than being independent of it.

We argue that the realm of meso-level theories is inhabited by two types of theories: Merton-type 'theories of the middle range' and what we call 'substantiated theories.' Substantiated theories are, as the term suggests, substantiations of a particular social theory in relation to a particular topic. Although using two different labels for meso-level theories suggests that these theories deviate from each other, there is no clear demarcation line between them. Instead, they represent the two ends on a continuum of meso-level theorizing informed by social theory. These two types of

theories are characterized by the different roles social theory and empirical particulars play in their development. Moreover, since the conceptual distance between social theories and empirical particulars is considerable, meso-level theories can also exhibit a varying degree of abstraction and generality. The following figure illustrates how each of the two types of meso-level theories relates to social theory on the one hand and the empirical particulars on the other:

Figure 3-1: The Two Roles of Social Theory in Meso-Level Theorizing
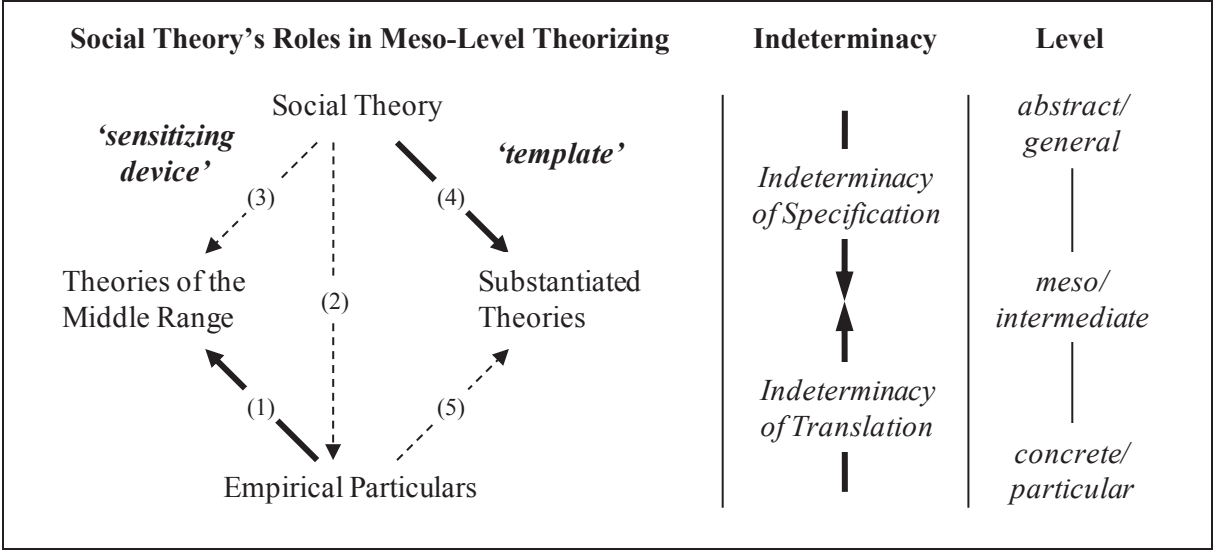
In the process of building meso-level theories, social theory can be either employed as a sensitizing device or as a template. In the formulation of Mertonian-type theories of the middle range, social theory normally plays a subordinate role (see [3]; indicated by the dotted arrow). Critical about the relevance of grand social theorizing for empirical research, Merton (1957) proposes that social scientists should focus on developing theories "that lie between the minor but necessary working hypotheses that evolve in abundance in day-to-day research and the all-inclusive systematic efforts to develop unified theory that will explain all the observed uniformities of social behavior, organization, and social change" (p. 39). He stresses that such theories of the middle range should be formulated bottom-up, i.e. inductively from empirical data (see [1]; primacy indicated by the bold arrow). They "[can]not [be] logically *derived* from a single all-embracing theory of social system, though once developed they may be consistent with one" (p. 41; italics in original text). Middle-range theories are thus primarily empirically informed and not derived from a particular social theory.

However, we believe that Merton's general dismissal of social theory from empirical research is based on the same misconception of the nature of concepts in social theory as discussed by Blumer (1954). Although the concepts forwarded by social theorists may be too broad and unspecified for direct empirical testing, this does not mean they are of no value to social researchers aiming to formulate primarily empirically informed theories of the middle range. Social theory's concepts can still serve as 'sensitizing devices' (Blumer, 1954; also Giddens, 1984: 326). Moreover, they can provide support for the difficult task of moving from empirical data to middle-range theories. Such sensitizing can take place in two different ways. Social theory can sensitize researchers during data collection (2) and/or data interpretation (3). However, social theory plays a subordinate, supporting role throughout the entire theory building process. With regard to the problem of underdetermination/ indeterminacy, middle-range theories are subject to what Quine (1960) calls the 'indeterminacy of translation' as they are primarily developed bottom-up (see column labeled 'Indeterminacy'). The use of social theory in the process of theory building can to some extent alleviate this problem by adding focus during data collection (2) and providing an explanatory logic for the interpretation of the data gathered (3). However, it can only do this by adding another type of indeterminacy, namely indeterminacy of *specification*. To use concepts of social theory as sensitizing devices during data collection and interpretation requires the researcher to specify these concepts with regard to the subject matter to be explored. Such specification is also indeterminate because of the interpretative moment involved in translating socio-theoretical concepts into more substantive ones. Generally, the use of social theory is justified if the gains from a reduced indeterminacy of translation outweigh the losses from the indeterminacy of specification added. Whether this is the case depends on the subject matter investigated and the social theory employed.

In the development of 'substantiated theories,' social theory takes on a different role. These meso-level theories are, as the name already indicates, substantiations of a particular social theory in relation to a particular subject matter. In contrast to social theory's subordinate role in building middle-range theories, a particular social theory is used as a primary source of conceptual and explanatory inspiration (4). It provides social scientists with a capacity for 'sociological imagination' (Mills, 1959) and a particular world-view (see, for example, Kilminster [1991] on structuration theory as a world-view). As 'derivatives' of a particular social theory, substantiated theories build on a social theory's primary conceptual dimensions ('what?') and its explanatory logic

('how?' and 'why?'). The social theory is primarily 'put into use' by specifying its dimensions in terms of the subject matter theorized. In this process of specification, the abstract and substantively vacuous concepts of a social theory are translated into more definitive, substantive concepts to form a meso-level theory related to the topic of interest (e.g., the social practice foresight in organizations).

Substantiated theories differ from theories of the middle range not only in respect of their relation to social theory but also in their relation to the empirical realm (5). At least three differences can be identified. First, while middle-range theories are primarily induced bottom-up from empirical data and only weakly informed by social theory, it is the empirical realm that plays a subordinate role in the development of substantiated theories. This does not imply that the latter are entirely disconnected from empirical instances or that they are generally less empirically valid than middle-range theories. It only means that substantiated theories are not primarily developed from empirical data and that the empirical realm is employed in a much more flexible and opportunistic way. For example, during the development of our theory of the social practice of foresight in organizations, we relied on common-sense reasoning instead of performing an in-depth empirical study of the phenomenon in an empirical setting. With regard to empirical validity, substantiated theories also benefit from the general empirical validity of the social theory that informs its development. Second, while middle-range theories normally focus on particular aspects of a social phenomenon, substantiated theories entail anything from a focused use of a single socio-theoretical concept to a comprehensive account of a particular phenomenon. Our theory of foresight in organizations is an example of the latter. Owing to its generality, it could thus also be called a 'substantive ontology.' Third, while developing theories of the middle range is about generating empirically testable hypotheses, this is not the primary goal when developing substantiated theories. The goal of the latter is rather to grasp and convey the gestalt of a particular phenomenon and at best forward some general propositions about the nature of the phenomenon theorized.

The remarks made above indicate that substantiated theories also differ from theories of the middle range regarding the problem of indeterminacy. While the former are first and foremost empirically indeterminate with the problem of the indeterminacy of specification playing only a subordinate role in theory building, this relation is inversed in the process of developing substantiated theories. When a particular social theory contributes to the formulation of more substantive theoretical accounts, its highly abstract concepts need to be specified with regard to the subject matter.

However, how are these concepts to be specified? Which concepts and which dimensions of concepts adopted have to be taken into account and what can be left unconsidered? Or more generally put: How can we avoid theoretical arbitrariness? The development of our account on the social practice of foresight in organizations illustrates this problem. Since we wanted to build a theory that directly builds upon Giddens's theory of structuration, we had to (a) decide which concepts of Giddens's comprehensive theoretical framework to adopt and (b) determine how to fill them with substance.

Translating a social theory into a substantive meso-level theory is an iterative task. The social scientist must move back and forth between the social theory employed and the subject matter theorized to gradually form a new, meso-level theory. Weick's (1989) idea of theorizing as 'disciplined imagination' serves as a procedural template in this process. During a lengthy theorizing process, new ideas and thoughts are constantly added and subsequently tested for plausibility. The theoretical account developed represents an 'interim struggle' (Weick, 1995a: 385) rather than a completed task. Substantiated theories remain open to criticism and modifications as the substantiation could have been done differently.

Since each social theory differs in terms of its central concepts, explanatory logic, and research questions it helps to address, we need to specify the implications of adopting structuration theory as a 'world-view' (Kilminster, 1991). What are the indispensable theoretical claims and aspects of Giddens's (1976, 1979, 1984) theory that need to be retained in any meso-level theory which claims to be true of structurationist theory's world-view?

3.5.3   Towards a 'Structurationist Imagination' of Organizational Phenomena

To develop a more substantive theory of structuration presupposes that such a theory adopts structuration theory's theoretical core and its explanatory logic that ties together its concepts and dimensions. Although this claim may sound trivial and self-evident, authors of accounts based on structuration theory have shown limited interest in clarifying the requirements and implications of adopting structuration theory as an analytical framework and source of inspiration in theory building efforts. Some authors have been explicit about the conceptual elements they have adopted. However, there has been a vexing silence regarding an array of important questions related to the

different types and possibilities of meso-level theories of structuration as well as on the relationship between Giddens's social ontology and such substantive theories.

A broad and complex array of questions arises from employing structuration theory in theory building: Should structuration theory be adopted en bloc or can/should researchers employ its concepts selectively? In case of a selective use of concepts, what core elements need to be adopted so that the theory developed passes as a structurationist one? What are the possibilities and limitations regarding the types of theoretical accounts that can be formulated? What types of explanations does structuration theory allow for? This list of relevant questions could easily be extended.

Since the aim of this paper is to create a substantiated theory of the social practice of foresight in organizations, we focus our elaborations on the requirements and implications of translating structuration theory into more substantive theories through disciplined theoretical reflection. We thus disregard certain questions and issues concerning the use of structuration theory in empirical research, although some of the aspects discussed hereafter are also relevant to the conduct of such inquiries. Furthermore, to avoid getting unnecessarily tangled up in the myriad of philosophical subtleties, we focus on the most pressing questions. Our goal is not to compensate for Giddens's lack of interest in epistemological and methodological issues (Bryant, 1992), but to provide some general guidance for social scientists aiming to translate structuration theory into substantive, meso-level theories and to provide the reader with an overall sense of how structuration theory's idiosyncrasies and 'spirit' can be preserved in the translation process. Each of the subsequent paragraphs starts with a question which is subsequently answered. The sequence of these questions is arbitrary and does not imply a priority order among these issues.

What is the ontological status of structuration theory and what does this imply for the development of substantiated theories? Structuration theory explicates the constitution of social life on a high level of abstraction and generality. Opposing the dominance of functionalist thought in social research (e.g., Giddens, 1979: 7) and puzzled by the increasing socio-theoretical disarray and the relativistic tendencies in the aftermath of the resolution of that 'orthodox consensus' in the late 1960s (see Giddens, 1984: xvi), Giddens saw a basic need for establishing a new foundation where ideas from various traditions of socio-theoretical thought could fruitfully meet. He argues that many of the dualisms in social theory, such as agency versus structure or subjectivism versus objectivism, are essentially conceptual rather than ontological. To reconcile these

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theoretical conflicting views, Giddens had to find a new conceptual basis from which he could rework concepts, such as agency, structure, and so forth. The concept of (social) practice – defined as routinized human conduct – provided this new ground. However, to synthesize socio-theoretical ideas from different traditions, Giddens had to formulate his own account on a highly abstract level (Stones, 2005: 7) detached from empirical particulars. As a consequence, Giddens's theory of structuration does not provide "clear links to substantive circumstances" (Stones, 2005: 7). However, this does not imply that such links cannot be established. We believe that it is ultimately the task of scholars of specialty topics, such as foresight, learning, and so forth, to fill this gap by translating Giddens's social theory into meso-level theories. It is their task to develop the 'bridging concepts' that substantiate structuration theory's abstract concepts and dimensions with regard to the subject matter theorized.

Can/should structuration theory be employed en bloc or should social scientists rather pick the concepts and ideas which seem useful to advance insights into a subject matter? Giddens has repeatedly stated that he does not feel overly sympathetic towards the ways in which most authors have employed his concepts in their work (e.g., Giddens, 1989: 294). He has always been critical of an *en bloc* adoption of his ideas in expectation of methodological innovation. Instead, Giddens believes that the concepts of structuration theory should "be used in a selective way in thinking about research questions or interpreting findings" (Giddens, 1991a: 213). He stresses that there is "no obligation for anyone […] to take on board an array of abstract notions that would merely clutter up what could otherwise be described with economy […]" (Giddens, 1984: 326). Moreover, he contends that "to suppose that being theoretically informed […] means always operating within a welter of abstract concepts is as mischievous a doctrine as one which suggests that we can get along very well without ever using such concepts at all" (p. 327). Giddens suggests that the use of structuration theory's concepts must be tailored to the goal of the research project and the research questions posed. However, this permission to choose concepts and ideas is not to be understood as a free ticket to arbitrarily combine his ideas with concepts and ideas from other traditions of thoughts as many scholars have mistakenly done. For example, scholars cannot uphold structuration theory's claim of human actors' knowledgeability when following a functionalist mode of reasoning. Moreover, it is impossible to remain true to the premises of structuration theory when structure is not seen as constituted within and through social actors' knowledgeable conduct but as an external, reified 'thing.'

Hence, while scholars can select those concepts and ideas that seem promising for gaining new insights into the topic or phenomenon investigated, it is essential that they adopt Giddens's concepts in a way that remains true to the overall 'spirit' of structuration theory.

What types of analytical-methodological brackets does structuration theory allow for and what does this imply for the development of substantiated theories? According to Giddens (1984: 288f.), structuration theory lends itself to two types of 'methodological brackets.' First, social scientists can concentrate on actors' strategic conduct. In such analyses, the focus is mainly on issues of practical reasoning, the conduct of social actors, and how the structural context enables and constrains that conduct. The institutional properties of larger social wholes are bracketed. However, putting an analytical veil on institutional aspects of social collectives does not mean that they are in fact irrelevant to actors' strategic conduct. The bracket is, as already noted, only methodological and not ontological. The second form of bracketing advocated by Giddens is the opposite of the first. In analyses of stability and change in social collectives, the strategic conduct of single actors may be bracketed. Generally, the installation of analytical brackets depends on the overall research goal and the research questions posed. If the goal is to theorize on individuals' conduct and the processes involved in this (e.g., reflexive monitoring of conduct, rationalization of conduct, social interaction, etc.), it is advisable to bracket institutional dimensions, since they add little explanatory value to the account developed. By the same token, if the goal is to develop a theory on the macro-mechanisms of structural or systems reproduction, then details about the actors' conduct may unnecessarily clutter the account.

Finally: *What is the 'theoretical core' of structuration theory that must be considered if a substantiated theory is to count as a structurationist one?* To define structuration theory's essence is not an easy task, especially since Giddens advocates the selective use of structuration theory's concepts as well as the use of different analytical brackets. Certainly, the term 'structuration' has served as an overall label for his theoretical project, which suggests that it is central to his overall account. However, does this mean that the idea of structuration must be incorporated into all substantiated theories in order to be structurationist accounts? We do not think that this is the case. Earlier in this paper, we argued that – regarding a particular topic or subject matter – substantiated theories resemble the key elements and explanatory logic of a particular

social theory. Additionally, we stated that the research goal primarily determines which aspects of social theory may be useful in developing a substantiated theory. Given this, the above-mentioned question can be reformulated to: Are there any research goals/questions for which a social researcher can employ structuration theory without the concept of structuration? The answer to this question is yes. For example, a social researcher interested in power dependencies among social actors could decide to employ Giddens's (1984: 16) idea of the 'dialectic of control.' If the researcher's focus is on understanding how social actors mobilize different types of resources as a means of domination but not on the impact this has on the reproduction of social relations, then it is not necessary that the researcher adopts Giddens's notion of structuration. Nevertheless, the account developed may be a truly structurationist one. If not the concept of structuration, what is the indispensable 'theoretical core' of structuration theory that must always be taken into account when developing substantiated theories true to Giddens's overall project? A brief review of Giddens's original motivation to formulate his social theory proves illuminative here. It was primarily his discontentment with the dehumanized view of the orthodox consensus that impelled Giddens to draft a new socio-theoretical account which forcefully reintroduces social actors as constitutive element in social theory. Giddens was convinced that social actors are not only performing agents who are telecommanded by some sort of social 'force(s),' but that they are inherently knowledgeable agents who know a great deal about how to intervene in the world. This idea constitutes the core of structuration theory and serves as Giddens's starting point for reworking other concepts, such as agency, structure, power, etc., and the relationship between them. Regarding the concept of structure, assuming knowledgeability implies that structures can no longer be seen as something independent of the acting subject. Thus, Giddens conceptualizes structures as 'virtual' bundles of rules and resources that only become real – in the sense that they have a bearing upon human conduct – if agents appropriate them in their conduct. Structures can only enter into human conduct through agents' knowledgeability. This does not mean that actors are always aware of the structural elements which inform their conduct or that they can discursively attend to them. Human conduct is for the most part governed by humans' practical rather than their discursive consciousness. To account for the fact that many structural properties are relatively stable over time, Giddens proposes that the moment in which structural features are appropriated in conduct is also the moment of their reproduction. He has referred to this as the 'duality of structure' (e.g., Giddens, 1984: 25ff.). Furthermore, if

structure is conceptualized as rule-resource sets, then it is no longer only constraining but also enabling. Without the tacit knowledge of rules of conduct, actors are not able to act in a competent way. We believe that any account, which claims to live up to structuration theory's overall spirit, needs to take these elements into account. According to our understanding of Giddens's complex and comprehensive project, the 'spirit' of structuration theory is captured in his concepts of knowledgeability, the practical consciousness, structure as rules and resources, and the dual nature of structures. We believe that any account which claims to be structurationist needs to somehow account for these aspects. How precisely they are accounted for and which other aspects of structuration theory are considered depends, as mentioned, primarily on the subject matter and research goal.

Subsequently, we present our own 'interim struggle' (Weick, 1995a: 385) to apply the foregoing propositions about theories' general quality measures, the use of social theory in building substantiated theories, and the implications of theorizing from a structuration theory stance to develop a practice-based theory of foresight in organizations. Our theoretical account is divided into two complementary parts. In the first part, we discuss some general characteristics of foresight as a social practice. In the second part, we introduce our practice-based theory of foresight derived from structuration theory through disciplined theoretical reflection.

3.6   Some General Characteristics of Foresight as Practice

Developing a practice-based theory of foresight in organizations requires that we clarify the underlying characteristics of such a perspective. The following section is informed by Weick's (1995b) prior work on the general characteristics of the practice of sense-making in organizations as a related field of study. He argues that sense-making is characterized by seven properties that set it apart from alternative 'explanatory processes,' such as understanding or interpretation. Likewise, to distinguish foresight from sense-making and other 'anticipatory processes' in organizations, such as forecasting or scenario building, it is useful to outline some general characteristic of foresight as social practice. The properties described below serve as basic principles for any practice-based account of foresight in the context of organizations. In addition, outlining the key characteristics allows us to formulate a general definition of what we refer to as the practice of foresight. As we conceive it,

the practice of foresight is the *ongoing, social* process of constructing *plausible* and *actionable 'memories of the future'* to maintain a sense of *identity and ontological security*. This definition statement comprises five elements we consider fundamental to foresight as practice: foresight is (1) about creating actionable 'memories of the future'; (2) social; (3) ongoing; (4) about maintaining self-identity and ontological security; and (5) driven by plausibility rather than accuracy. Each of these elements is briefly discussed below.

3.6.1 Foresight is About Creating Actionable 'Memories of the Future'

It seems rather trivial to state that foresight is about the future. However, it is this characteristic which distinguishes the practice of foresight from sense-making. Contrary to foresight, sense-making is grounded in 'retrospection' (Weick, 1995b: 24). However, both foresight and sense-making rely on the human actor to 'cut' into the continual flow of time, i.e. to 'slice' it into discrete segments or episodes that can then receive attention. One cannot talk about the pure duration of experience, only about particular experiences. Both sense-making and foresight enter into our experience as memorized events. While the former attends to memories of the past (Weick, 1995b), the latter concerns what Ingvar (1985) calls 'memories of the future.' Human agents 'memorize' expected future events similar to past events. According to Schütz and Luckmann (1980), the future is "filled with typifying anticipated lived experiences" (p. 52) that are stored as memories and called upon to enact desired outcomes. Foresight is about bringing "effects of future time into the psychological present" (Gjesme, 1983: 347). Moreover, 'memories of the future' are actionable, future-directed 'plans' (Schütz, 1932, 1976) that have a bearing upon decision-making and action-taking. As 'typifications,' these plans are stored in our stock of knowledge and they exhibit the same logical structure as past experiences. This implies that "we cannot expect any event of whose typicality we have had no pre-experience" (Schütz, 1976: 292). Foresight is always bounded by past experiences stored in the individual's 'stock of knowledge' and the human capacity to use these experiences as 'typifications' to anticipate what lies ahead. This does not mean that our 'plans' or 'memories of the future' are fixed. They are rather in continuous flux (Schütz, 1976: 290). Moreover, since our individually held plans cover varying time spans – humans may have plans for the next minute, hour, day, and so forth – these plans' degree of fluidity varies

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considerably. Foresight, as we understand it, is essentially about maintaining a sense of coherence in individual's personal 'experience' of the future by constantly creating new and modifying existing 'memories of the future.'

3.6.2 Foresight is Social

Like sense-making, foresight is an inherently social endeavor. Traditionally, foresight has been regarded as an ability of the individual (business) mind (e.g., Whitehead, 1933) – a view which was advocated by cognitivists and scholars of psychology. However, more recent research has shown that our thinking about the future is socially influenced (Trommersdorff, 1983). Since "human thinking and social functioning […] [are] essential aspects of one another" (Resnick et al., 1991: 3; cited in Weick, 1995b: 38), foresight is not merely an isolated act of the individual, but constituted in social interaction as humans share and negotiate their 'memories of the future.' This suggests that an organization is not merely a "network of intersubjectively shared meanings that are sustained through the development and use of a common language and everyday social interaction" (Walsh & Ungson, 1991: 60) or a "set of procedures for argumentation and interpretation" (March & Olsen, 1976: 25), but a web of shared 'memories of the future.' Conceiving foresight in organizations as a social phenomenon is not entirely new, since it has previously been regarded as 'socially embedded competences' (e.g., Tsoukas & Shepherd, 2004a) or as 'social capacity' (e.g., Slaughter, 1996). Moreover, a sort of social constructivism seems to be tacitly assumed in many accounts introduced by scholars of foresight (Fuller & Loogma, 2009). Nevertheless, we believe that the social dimension of foresight has not yet been fully explored. For example, foresight is not only social in a constructivist sense, but also in a very practical sense. Humans create, share, negotiate, modify, and dismiss their 'images of the future' in day-to-day interactions with one another. It is the latter which we investigate in this paper.

3.6.3 Foresight is an Ongoing Process

Since "every current situation has a future horizon" (Schütz & Luckmann, 1980: 241) and the "mastery of actual situations [..] involves an orientation to the future" (ibid:

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238), foresight must be considered an ongoing process. If regarded as a social practice, foresight is an ongoing process on two interlaced levels: the individual-cognitive level and the socio-interactive level. On the individual level, foresight is grounded in the innate human need to know how to 'go on.' The continuity of temporal experience is fundamental to our sense of 'ontological security.' To form this continuous stream of experience, the practical consciousness of humans continuously fuses memories of the past and future with goings-on in the present. The memory traces of the past, the experienced present, and 'memories of the future' are cognitively synthesized to provide us with the existential experience of time as a coherent stream. As an ongoing cognitive process, foresight it is interwoven with continuing processes of motivation and rationalization (see Giddens, 1984). Together, they form our practical consciousness, which provides us with the existential capacity to act.

People constantly modify their 'memories of the future' by assessing the bearing of happenings upon these 'memories.' This process of memory modification takes place both on the individual level as well as during social interactions. Humans routinely assess and share their anticipations, expectations, plans, fears, and so forth, during interactions with others. In doing so, they must, as we noted earlier, 'cut into' the tacit stream of temporal experience to extract their 'memories of the future' they want to share with others. They must convey their pre-reflexive 'experience' of the future from their practical consciousness into the realm of their reflexive, discursive consciousness (see Giddens [1984: 41ff.] for the distinction practical vs. discursive consciousness). While foresight on the pre-reflexive level is an ongoing tacit process, reflexive attention to 'memories of the future' and the engagement in discursive practices about the future is often initiated by events that pose a threat to our identity or 'ontological security.' Whenever we expect the future to be threatening or to affect our self-identity, we reflexively attend to our 'memories of the future' and intensify our engagement in collective discourses about the future to restore our basic sense of trust that we can 'cope' (Heidegger, 1927) with what the future holds for us.

3.6.4 Foresight is About Maintaining Self-Identity and Ontological Security

The above-mentioned arguments indicate that foresight is essentially existential. As an innate capacity of human beings (Bell, 2003), foresight is directed towards the maintenance of self-identity and ontological security, whereas ontological security is

the "confidence or trust that the natural and social worlds are as they appear to be, including the basic existential parameters of self and social identity" (Giddens, 1984: 375). We agree with Schütz and Luckmann (1980) that "[i]n our thinking about the life-world we are, above all, directed toward the future" (p. 19). Moreover, in modernity, ontological security is essentially future-oriented (Giddens, 1990: 102). However, since the future is only in part modifiable by our actions and always to some extent beyond our control, ontological security is constantly jeopardized (Giddens, 1991b). It is by engaging in foresight that we intend to overcome or alleviate the existential fears which arise from the inherent openness of the future (Hayward, 2005: 64ff.).

Self-identity, however, is not only the existential 'reason' for permanently looking ahead, but it is also recursively implied in how we see the future. Or as Weick (1995b) puts it: "depending on who I am, my definition of what is 'out there' will also change" (p. 20). Foresight draws upon our self-identity, and vice versa. The synchronous rooting of self-identity in the autobiographical past makes our self-identity the instance which mediates between our past and our view of the future.

The proposed recursive relationship between self-identity and 'memories of the future' suggests that the more 'selves' one has access to, the less likely one will be to be surprised by the future (see Louis, 1980). However, while alternative, provisional self-identities help to 'see' the future in different ways, they can become a source of another form of 'ontological insecurity,' namely equivocality. This is the case when the multiplicity of self-identities leads to an abundance of alternative, partially conflicting 'memories of the future,' which threaten the "consistency of one's self-conceptions" (Weick, 1995b: 22). As a consequence, we may find ourselves paralyzed, i.e. unable to make decisions and take actions.

3.6.5 Foresight is Driven by Plausibility Rather than Accuracy

Foresight is essentially pragmatic. Even in attempts to formulate explicit predictions, "the 'unique', unrepeatable aspects of future events are not grasped, but only the possibility, probability, etc," (Schütz & Luckmann, 1980: 240). Evidently, this has a lot to do with the increasing openness of the future as a consequence of modernity (Giddens, 1990, 1991b). If the future is regarded as inherently open, then anticipations and predictions can always be proven wrong.

We have already stated that 'memories of the future' are typified future states/events that are paired with 'plans' for their enactment. Since we know that our 'memories of the future' represent only possible or probable future states/events, we do not claim to know with certainty what will happen. Consequently, the (social) construction of these 'memories' is governed by plausibility rather than accuracy. The notion of plausibility suggests that we strive for just 'enough certainty' (Isenberg, 1986: p. 242) to make decisions and take action. We aim for a 'good story' which "holds disparate elements together long enough to energize and guide action" (Weick, 1995b: 61; Weick actually made this comment with regard to the topic of plausibility in sense-making). The goal is not to construct detailed and accurate depictions of possible futures but to have "some map that brings order to the world and prompts action" (Sutcliffe, 1994: 1374). Foresight is – like sense-making – essentially about plausibility, coherence, reasonableness, and instrumentality (see Weick, 1995b: 57).

The plausibility versus accuracy debate, it seems, is resembled by the foresight versus forecasting debate in the organization literature. Cooper (2005) argues that foresight is about engaging in the vague, imprecise, and latent while forecasting is essentially about accurate predictions. However, we think this view is flawed. While forecasting's heavy reliance on quantitative methods suggests that its ultimate goal is precision, plausibility plays at least an equal role in such analyses. Forecasting does not operate within an entirely closed view of the world or future. Especially newer methods of forecasting acknowledge that the future is inherently open and to a large extent random rather than closed and predictable (Taleb, 2001, 2007).

Building upon these basic characteristics of foresight as practice, we now present our structurationist account of foresight in organizations. Adopting structuration theory as primary analytical framework allows us to not only develop a fresh and innovative view on foresight as a research topic of increasing relevance, but it also provides the basis for resolving conceptual dualisms which have hindered progress in the field.

3.7   Towards a Practice-Based Theory of Foresight in Organizations

An account which deals with the phenomenon of foresight should be adequate on two levels: meaning and causality (Weber, 1968: 579ff.). Adequacy at the level of meaning requires that we provide an adequate interpretation of the subjective experience of

foresight on the individual level. However, to move beyond a descriptive account towards an explanatory one, we must also provide some sort of 'generalizing concept' (Weber, 1968: 605ff.), i.e. a 'causal' interpretation on a higher level of abstraction. This implies that we account for the underlying 'mechanisms' of which actors involved in the social practice of foresight may not be directly aware. However, this does not mean that the social practice of foresight is in some regard governed by invariant laws that resemble the laws found in the natural sciences. Acknowledging that human beings are purposive, knowledgeable agents who can always choose to 'act differently' (Giddens, 1984: 9) require that we keep our theoretical account clean of any deterministic claims regarding the conduct of those actors.

We believe that Giddens's theory of structuration provides an overall framework which allows us to develop an account that lives up to Weber's (1968) claim of 'double adequacy.' For this purpose, we have divided our account into three dimensions. The first dimension takes into account the *personal-existential* aspects of foresight on the individual level, which leads to the following questions: What role does foresight play in our daily lives?; Why is it that we constantly create and utter our anticipations, views, fears, and so forth to others? The second dimension deals with the fact that man is an inherently social animal. Thus, to complete our account on the level of meaning, we need to clarify the *socio-interactive* dimension of foresight. We pose the following questions: In what regard is foresight socially constituted?; How does this social 'layer' relate to the agential-existential one? The third dimension deals with the *structural* and *institutional* dimensions of foresight, leading to the key question: In what regard do structural and institutional aspects influence the social practice of foresight? The following table summarizes these three dimensions. (Note: the row labeled 'adequacy' indicates to which level of adequacy a dimensions relates; 'properties' indicates how each dimension connects to the basic characteristics of foresight).

Table 3-3: Theoretical Dimensions of Foresight as Social Practice

	Personal-Existential Dimension	**Socio-Interactive Dimension**	**Structural-Institutional Dimension**
Definition	Foresight is *existential*; humans need to maintain self-identity and ontological security	Foresight is *social*; individuals share and negotiate their view, expectations, etc.	Foresight is *regularized*; discourses on the future are enabled and constrained by structural features
Key Question(s)	In what regard is foresight existentially grounded? How does it relate to human action?	In what regard is foresight a social practice?	What is the role of structural properties in the constitution of foresight as social practice?
Adequacy	Meaning	Meaning	Causality
Properties	1, 3, 4	2, 3, (4)	–

To theorize about these three dimensions from a structuration point of view, we translated them into four conceptual building blocks. The first element investigates foresight on the level of meaning. For this purpose we look at the *personal-existential* as well as the *social-interactive* dimensions of foresight. The key reason for combining these two dimensions into one building block is that they can both be theorized with reference to Giddens's 'stratification model' of the social actor. In addition, we propose three building blocks which investigate foresight on the 'causality' level. We decided to split the *structural-institutional* dimension of foresight into three conceptual parts to resemble the analytical distinction Giddens made within his 'structuration model' (see Giddens, 1979: 81). Each building block relates to one of the three dimensions of social practices: (1) the use of shared rules and interpretative schemes to convey meaning in communicative action; (2) the mobilization of resources ('facilities' in Giddens' terms) as a source of power to act and to pursue interests; and (3) the sanctioning effects resulting from the normative side of shared rules of conduct.

Figure 3-2: Key Analytical Dimensions of Social Practices
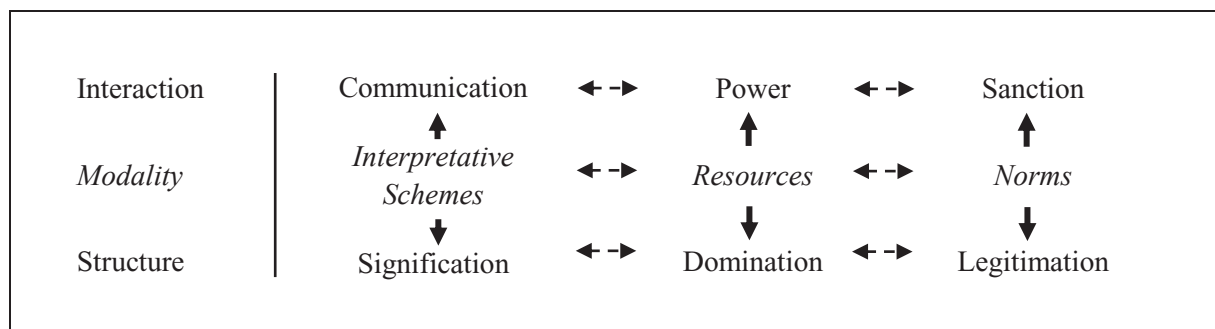
Based on Giddens (1979: 82) and Giddens (1984: 29)

Although each of the three dimensions can be analyzed separately, "in social life itself they are subtly yet tightly interwoven" (Giddens, 1979: 104). During interactions, meaning, normative elements and power are interlaced (Giddens, 1984: 28). To conceptually relate action to structure along all three dimensions, Giddens introduced what he calls 'modalities' of structuration as manifestations of the structural realm. These modalities serve to "clarify the main dimensions of the duality of structure in interaction, relating the knowledgeable capacities of agents to structural features" (Giddens, 1984: 28). However, before we embark on a more in-depth discussion of these structural dimensions and how they impact the social practice of foresight in organizations, we need to work out both the personal-existential and the socio-interactive dimensions of foresight.

3.7.1   The Existential and Social Dimensions of Memories of the Future

Foresight is an existential human need and a social accomplishment. Each actor carries along an idiosyncratic stock of 'memories of the future' (Ingvar, 1985) which is tightly bound-up with his or her biographical past as it is the latter which provides the 'typifications' (Schütz, 1932) by which the future is depicted. Consequently, through these 'typifications,' the future is connected to the past. Humans experience time as a seamless thread rather than as divided into the past, the present, and the future.

With the 'stratification model' of the actor, Giddens (1979, 1984) offers a well worked out and powerful analytical model that allows us to account for the personal-existential grounding of foresight as well as to explore its socio-interactive dimension. The following illustration depicts the dimensions of his model:

Figure 3-3: Giddens's 'Stratification Model' of the Actor
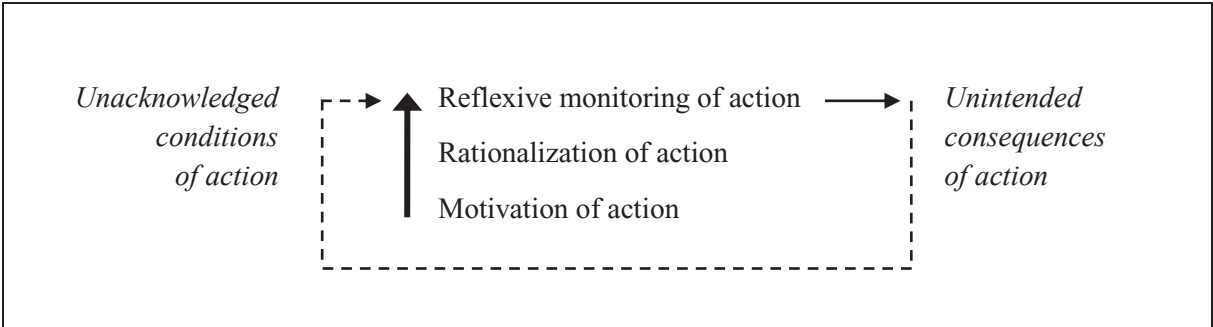
Giddens (1979: 56); Giddens (1984: 5)

From a *personal-existential* view, foresight is a chronic feature of life and takes place mostly at the level of practical consciousness. Foresight is an ongoing cognitive process which is closely interwoven with other ongoing cognitive processes, such as motivation and rationalization. Structuration theory suggests that it is through ongoing processes of rationalization that actors maintain a "continuing 'theoretical understanding' of the grounds of their activity" (p. 5). Since rationalization supplies the 'reasons' for what we do and since reasons are teleological and directed towards the future, foresight is deeply woven into the process of rationalization. Moreover, the rationalization of conduct based on foresight is "the basis upon which the generalized 'competence' of actors is evaluated by others" (Giddens, 1984: 4).

Foresight on the rationalization level can be analytically distinguished from foresight on the motivation level. While reasons and rationalization refer to the grounds of action, motifs and motivation refer to our *potential* for action (Giddens, 1984: 6). Motivation is thus "not as directly bound up with the continuity of action as are its reflexive monitoring or rationalization" (Giddens, 1984: 6). However, motifs provide the overall 'projects' (Schütz, 1971: 20) within which we can enact a range of conduct. Our motivation supplies us with an imagery of aspired future states which we want to realize.

Foresight – as embedded in motivation and rationalization – is existential as it provides us with the potential for action as well as with a means to guide initiated actions towards the realization of a particular goal. Without foresight as an ongoing cognitive process on the level of our practical consciousness, our pre-reflexive everyday conduct would not be directed towards the future as it is. It is normally only in the event of threats to our 'ontological security' or self-identity that we also reflexively attend to our memorized motifs, reasons, plans, expectations, and so forth. We can assess our 'memories of the future' either through reflection or in communicative encounters with others.

Humans are inherently social creatures and "rely on feedback from fellow humans to determine their own existence and the veridicality of their personal beliefs" (Jonassen & Land, 2000: vi). This means that foresight must also be conceived as a process of social construction. We argue that our 'memories of the future' are socialized in two regards. First, foresight is socialized already at the practical, pre-reflexive level of motivation and rationalization. Since we can only define our self-identity through social interaction and since motifs and reasons are grounded in our self-identity, the processes of rationalization and motivation are socially influenced.

Second, as suggested above, foresight is not confined to the pre-reflexive level of practical consciousness. Instead, humans routinely attend to their 'memories of the future' through reflection and engage in discourses on the future. They discuss their anticipations, concerns, plans, fears, and so forth in order to validate their views of the future. Although both forms of socialization are elemental for understanding foresight as a social achievement, we refer to the latter when speaking about the social practice of foresight, namely the social construction of 'memories of the future' in discursive encounters.

Giddens's 'stratification model' of the social actor allows not only for investigating the personal-existential grounding of foresight in the ongoing processes of rationalization and motivation, but it also provides a powerful analytical tool for exploring foresight as a social practice. If foresight is about sharing and validating 'memories of the future' in discursive encounters, then it can be conceptualized and analyzed as a particular type of (routinized) human conduct, i.e. practice subject to the ongoing, practical-cognitive processes of reflexive monitoring, rationalization, and motivation. *Reflexive monitoring* means that actors attend to their own utterances made, to the reactions and utterances made by others, and the interaction context in which personally held 'memories of the future' are made public. By concurrently monitoring all three aspects of discursive encounters, actors maintain a sense of how to 'go on' in these situations. It is also in this regard that Giddens has conceived of social actors as knowledgeable 'animals' (see Giddens, 1984: 30). On the level of *rationalization*, actors constantly keep in touch with their reasons for sharing 'memories of the future.' However, this does not mean that they are actually aware of these reasons or that they can readily supply reasons for their conduct if asked. The rationalization of conduct, like reflexive monitoring, usually takes place on the level of our practical consciousness. With regard to *motivation*, sharing our anticipations, expectations, plans, fears, and so forth is grounded in the human 'project' of knowing how to go on. The primary motif for engaging in discursive encounters about the future, we believe, is the human need to maintain a sense of 'ontological security' as a basis for decision-making and action-taking. Without a sense of what the future may look like, we are lost in paralysis.

What has been said so far is not confined to organizational life; instead, it is an integral part of being human. Expressing and sharing expectations, views, anticipations, fears, and so forth is – as de Certeau (2002) would say – a 'practice of everyday life.' However, if we want to explore the social practice of foresight in

organizations, we need to take the role of the structural-institutional context of organizations into account (in Giddens's terms: shared rules of conduct and resources) in the constitution of 'future talk.'

3.7.2 Communication, Interpretative Schemes, and Signification

Members of organizations construct their 'memories of the future' in conversations. As 'units of talk,' conversations exhibit observable beginnings and endings in time-space (Giddens, 1984: 83; see also Luhmann, 1990). They involve "standardized opening and closing devices, as well as devices for ensuring and displaying the credentials of speakers as having the right to contribute to the dialogue" (Giddens, 1984. 83). From an interactional perspective, conversations are arrangements through which individuals come together to engage in the construction of an 'intersubjective, mental world' (Goffman, 1981: 71). As organized interactions (see Sacks et al., 1974; Schegloff, 2007), conversations allow for "the maintenance of a [shared] *world*" (Schlegoff, 1991: 151; emphasis in original). It is in such shared moments of regularized 'co-presence' (Giddens, 1984: 64ff.) that actors routinely utter their anticipations, worries, plans, and so forth.

While conversation is regarded as the basic mode of interpersonal communication (Schegloff, 1991), the latter is a more inclusive concept (Giddens also uses the term 'communication' rather than 'conversation'). Personal interaction always involves the use of non-verbal cues to convey meaning (Argyle, 1972). Communication is also a more inclusive concept than that of communicative intent, i.e. what an actor means to say (Giddens, 1984: 29). Giddens argues that the conceptual relationship between communication and communicative intent has in fact been the source of two forms of reductionism that resemble the structure-action dualism. On the one hand, there are those who aim to build general theories of communication and meaning entirely based upon the concept of communicative intent (e.g., Grice, 1957, 1969). Giddens criticizes them for overemphasizing the intentional aspects of human conduct and neglecting that communication also takes place in the absence of intent. On the other hand, there are the critics of the 'intentional fallacy' who propose that communicative intent plays only a marginal role in the conveyance of meaning (e.g., de Saussure, 1916 and other structural linguists). While the former view is reductionist in its neglect of non-intentional communication, the latter is

reductionist in its neglect of communicative intent. Structural linguists argue that meaning is first and foremost constituted through a semiological 'différance' (Derrida, 1968) between signs rather than by communicative intent.

To overcome this reductionism, Giddens (1984: 31ff.) synthesizes the intentional-agential and the structural dimensions of communication much in the same way as he has done with regard to the reconciliation of action and structure. He employs his concept of the 'duality of structure' to argue that "[s]igns 'exist' only as the medium and outcome of communicative processes in interaction" (Giddens, 1984: 31) and that they thus "only exist as produced and reproduced in signification, just as structure only exists in and through processes of structuration" (Giddens, 1979: 97). This implies that signs cannot be regarded as fixed properties of communication as structural linguists propose. Instead, they are recursively grounded in the communication of meaning (Giddens, 1984: 31). Drawing heavily upon the later writings of Wittgenstein (1953), Mead's (1934) and Blumer's (1969) symbolic and Goffman's (1959) dramaturgical interactionism, Giddens introduces a practice-based approach to communication which transcends the dualism between action and structure in communication. According to him, meaning is constituted and conveyed neither through communicative intent nor through differences in sign systems, but through language *use*. Unlike the first two, the latter is contextually contingent and contexts of communication are created and sustained by actors who draw upon mutual knowledge in the form of shared interpretative schemes. These schemes comprise the 'generative rules' which allow for the uptake, upkeep, and termination of communication in interaction (see Giddens, 1976: 107). As rules of conduct, they simultaneously enable and constrain communicative encounters among social actors. Their existence, however, is virtual (Giddens, 1984: 17). These rules only become real once we appropriate them as 'methodological procedures' in discursive interactions in the sense that they have a bearing upon our conduct and are reproduced for future use. This implies that communicative action and structures are mutually constitutive and mediated by shared interpretative schemes.

What are the implications of this for the social practice of foresight in organizations? Whenever organizational members engage in communicative interactions in which they express and share their 'memories of the future,' they draw upon a shared set of tacitly held rules of conduct which enable the initiation, the upkeep, and the termination of conversations on the future. In fact, many of these rules – for example, rules to establish trust in encounters and rules of 'turn-taking' (Sacks et

al., 1974; Goffman, 1981) – are not confined to conversational encounters in which actors converse about the organization's future, but are appropriated in communicative interactions related to a broad array of topics and issues. Other rules, however, may be limited in their use to 'foresight talk.' Examples of the latter are rules that regulate when it is appropriate to initiate a discussion about the organization's future and with whom particular 'memories of the future' can be discussed. For instance, it is usually inappropriate to discuss issues concerning the organization's future in situations where 'outsiders' (e.g., clients) are also present. Moreover, while in some organizations top management may decide to establish specific sites (Giddens calls them 'locales') where members of the organization can express and share their concerns, fears, anticipations, and the like, in other organizations, members may have to fear sanctions when expressing particular views. In such cases 'future talk' is banned to what Goffman (1959) calls the 'back regions' hidden from the larger audience and senior managers in particular. In fear of sanctions, it is actually quite common that 'future talk' takes place in such 'back regions' (e.g., during an after-work drink with a trusted work colleague) as it is in these settings that members of the organization feel safe to converse openly about how they see the organization's future. Managers seeking to tap into their organization's collective capacity to 'anticipate' future opportunities, risks, etc. may need to establish rules and 'locales' that encourage organizational members to share their view, ideas, visions, etc. with others. However, this does not mean that managers can simply impose such rules. It is much more about establishing an interaction culture that allows for open communication about the organization's future. The communicative dimension of the social practice of foresight in organizations can be analytically distinguished from the political and normative dimension. 'Future talk' in organizations is impacted by 'dependencies of power' (Ranson et al., 1980: 7ff.) and the normative dimension of socially shared rules of conduct.

3.7.3 Power, Resources, and Domination

Ranson et al. (1980) argue that organizations are generally "composed of a number of groups divided by alternative conceptions, value preferences, and sectional interests" (p. 7). This implies that conflicts and disputes related to 'memories of the future' are an inherent feature of organizational life.

The topic of conflict has received considerable attention in organization research. Several scholars have provided typologies of conflict. Pondy (1967), for example, has suggested that conflict can arise among interest groups as they compete for scarce resources ('bargaining conflict') between superiors and subordinates ('bureaucratic conflict'), or conflict among parties with regard to their functional relationship ('systems conflict'). More generally, Deutsch (1973) has distinguished between five types of conflict related to their origin: control over resources, preferences, values, beliefs, and/or the nature of the relationship between the individuals involved. Previous research also found that conflict in organizations is a multidimensional phenomenon (Pondy, 1969; Jehn, 1992) and that it can be beneficial as well as detrimental (e.g., Deutsch, 1969). Conflict has generally been regarded as beneficial when it is 'substantive' (Guetzkow & Gyr, 1954), i.e. cognitive, task-oriented, and grounded in perceptual diversity (Pelled et al., 1999). It has been argued that a certain degree of 'conflict of ideas' (Jehn, 1997) may be valuable because the synthesis which emerges from sharing and negotiating conflicting views is normally superior to individual perspectives (Mason & Mitroff, 1981; Schweiger et al., 1986; Schweiger & Sandberg, 1989). Contrarily, conflict among members of an organization is normally detrimental or dysfunctional when it is 'socio-emotional' (Priem & Price, 1991) or affective, i.e. individual or relationship-oriented and grounded in "friction, frustration, and personality clashes" (Jehn, 1997: 88).

From a structuration perspective, the concept of conflict is substantially but not logically tied to the concept of power (Giddens, 1979: 90). According to Giddens, power "should *not* be defined in terms of conflict" (Giddens, 1979: 94; emphasis added). Although power may be most readily observable in situations of conflict, it is not limited to such. Power – unlike in the writings of, for example, Max Weber (1980: 28) and Lukes (1974) – is not logically tied to the realization of sectional interests or the overcoming of resistance, but to action (Giddens, 1979: 88). Power is the capacity of every human actor to intervene in the world and the course of events by deploying "a range of causal powers, including that of influencing those deployed by others" (Giddens, 1984: 14). Or in short: It is the capacity of every social actor to 'make a difference.' However, how can humans actually intervene in the course of events? It is important to keep in mind that in structuration theory power is not regarded as a resource itself (Giddens, 1984: 16), but merely as the agential capacity to mobilize various resources that in turn makes the exercise of power possible (Cassell, 1993: 11). Giddens proposes that, to intervene in the world, actors can draw upon any resource at

their disposal. Structuration theory distinguishes between authoritative or allocative resources. While the former allow actors to exert control over other actors, the latter lets them mobilize objects (e.g., financial funds). While there may be complete control over objects, control over subjects is never complete. In contrast to Foucault (1977), Giddens (1984: 16) contends that control is always dialectical. Those subordinated never act like 'automata'; they always retain some minimal agential power to influence the course of events and the conduct of their superiors.

Further, Giddens contends that power has neither only one face as argued by Weber (1980) nor three as proposed by Lukes (1974), but rather two as suggested by Bachrach and Baratz (1962) (see Giddens, 1979: 88ff.; 1984: 15). Power is not only the 'transformative capacity' to accomplish particular outcomes through the mobilization of allocative and/or authoritative resources, it is also institutionally involved in the most casual social encounters (Giddens, 1979: 88). To assume that power has 'two faces' does not mean that Giddens advocates the dualism between voluntarist and structuralist notions of power. Power in the second sense refers to the mobilization of bias built into institutions in situations of 'non-decision-making,' i.e. during the performance of implicitly accepted and undisputed practices (Giddens, 1979: 88).

As noted, structuration theory does not subscribe to Lukes's (1974) third 'face' of power. Lukes argues that the non-decision dimension of power should be separated into two sub-dimensions. First, structural features of domination can constrain the agenda. This is very similar to the second 'face' of power as advocated by Bachrach and Baratz (1962) to which Giddens subscribes. Lukes (1974), however, argues that there is a second, much more insidious, form of power involved in situations of non-decision-making, i.e. in agenda shaping. This form of power serves "to prevent people, to whatever degree, from having grievances by shaping their perceptions, cognitions, and preferences in such a way that they accept their role in the existing order of things, either because they cannot see or imagine an alternative to it, or because they see it as natural and unchangeable, or because they value it as divinely obtained and beneficial" (Lukes, 1974: 24). It is readily clear why Giddens cannot subscribe to this third dimension of power. To accept Lukes's (1974) claim would imply that humans are, at least to some extent, structural 'dopes' and not knowledgeable agents.

How does all of this relate to the social practice of foresight in organizations? As the human capacity to take action, power allows members of an organization to engage in the social practice of foresight. Actors can decide whether to utter their

anticipations, expectations, concerns, fears, and so forth, or to support or challenge 'memories of the future' expressed by others. In organizations, 'future talk' is enabled and constrained in many ways by existing 'structures of domination' and actors' possibilities to mobilize other actors or objects to influence shared 'memories of the future.' It is a common feature of organizational life that senior managers employ their formal, hierarchical position as a resource to influence 'future talk' in a variety of ways. For instance, it allows them to 'instill' their views onto others because they are formally authorized to make utterances about the organization's future. Through their formal position, they may also have access to information (e.g., proprietary knowledge about the organization's upcoming strategic initiatives) which they can also mobilize to 'sell' their views to others. This suggests that 'who is allowed to say what and when' is inherently bound up with the socio-relational network and the 'power system' within an organization.

Access to foresight-relevant information, however, is by no means exclusive to those at the helm of an organization. For example, a sales agent visiting an industry fair may coincidentally learn about a competitor's upcoming launch of a new product which constitutes a threat to the long-term success of his organization. Although he may not be in a formal position which allows him to regularly share his views on the organization's future with senior managers, the possession of such important, proprietary information supplies him with the necessary resource to get his view heard and influence ongoing discourses about the organization's future. This and the foregoing examples illustrate that each member of the organization can actually mobilize some types of resources to assume an active role in the social practice of foresight in organizations. Consequently, foresight is an inherently social and distributed organizational project. This does not deny that certain groups within the organization have a stronger influence on the organization's shared 'memories of the future.' The institutionalized bias built into an organization's socio-relational network and its 'power system' has a strong bearing upon the course and outcome of conversations on the organization's future. Moreover, since the tacitly shared rules of conduct and the (access to) resources constituting the organization's 'power system' are routinely enacted and unwittingly reproduced by organizational members, the organization's socio-relational network as well as its idiosyncratic practice of foresight are stabilized over time.

We contend that installing processes of foresight in organizations can only be a first step towards improving foresight in organizations. Formalized processes of

foresight may give certain members of the organization the opportunity to contribute to the overall capacity of the organization to 'foresee' changes in the future. However, formalized process approaches to foresight do not take into account that 'foresight talk' and the construction and sharing of 'memories of the future' are an ongoing, social enterprise. For managers aiming to improve foresight, it is essential to analyze the organization's 'power system' to identify and remove institutionalized biases and roadblocks to foresight.

3.7.4 Sanctions, Norms, and Legitimation

In addition to communicative and political aspects, there is always also a normative dimension involved in social interaction. According to the theory of structuration, the distinction between norms and interpretative schemes as 'modalities of structuration' is an "analytical, not a substantive one" (Giddens, 1979: 85) since "the conventions whereby the communication of meaning in interaction is achieved have normative aspects" (p. 85). For example, the rules of chess are not only constitutive of the game of chess, they also provide the possibility of sanctioning conduct that violates these rules (e.g., to revert a move). It is in this regard that Giddens considers rules simultaneously constitutive and regulative (Giddens, 1984: 19) – concurrently enabling and constraining human conduct (e.g., Giddens, 1984: 25).

For Giddens (1979: 85f.), the normative dimension of shared rules regulating human conduct is grounded in what Parsons (1951: 36ff.) has called the 'double contingency' involved in every social interaction. The notion of 'double contingency' refers to the indeterminacy which arises from the fact that in social interactions "both [actors] know that both know that one could also act differently" (Vanderstraeten, 2002: 77). Giddens proposes that socialization, i.e. normative alignment, is not constituted through the 'passive imprinting' of norms upon individuals by 'society,' but by the outcome of being "an active partner in the double contingency of interaction and in a progressive 'involvement with society'" (Giddens, 1979: 129). This implies that socialization does not stop at a particular point in an actor's life. In interaction, normative alignment is primarily established through the mutual expectation that rule-deviating conduct will be sanctioned by the interaction partner.

When approaching the matter of normative regulation in interaction from a structuration stance, it is important to keep in mind that Giddens's point of departure

for developing his synthetic socio-theoretical account was not – unlike, for example, Parsons (1937, 1951) – to develop a solution to Hobbes's problem of order (see Giddens, 1979: 101f.; Hobbes asked: How is it that coherence on the level of society exists given that actors are free in their will and conduct?). As a consequence, structuration theory does not propose that normative aspects of social interaction are in any way more important than power or communication in the constitution of social conduct. Moreover, norms relate to power in several ways. Sanctions are not only "a generic type of resource drawn upon in power relations" (Giddens, 1979: 86), they also "express structural asymmetries of domination" (Giddens, 1984: 30). Power, in turn, is also the capability to "enact or resist sanctioning processes" (Giddens, 1979: 83). Giddens thus concludes that normative aspects of practice are only analytically distinguishable from communicative and political dimensions.

With regard to our research topic, this implies that the tacit rules, which enable organizational members to routinely participate in the social practice of foresight also constrain them. Whenever organizational members engage in 'future talk,' the practical rules which constitute their doings as meaningful carry along the mechanisms for sanctioning rule-violating conduct. For example, socially agreed upon rules which define particular situations in which it is appropriate to converse about the organization's future also define the opposite, i.e. when it is *not* appropriate to utter personally held 'memories of the future.' In addition, these rules comprise a shared agreement over the sanctions which may be applied in case the rule is violated (e.g., interruption). Generally, socially shared rules signify and regulate the 'what,' 'when,' 'where,' and 'how' of 'future talk' in organizations.

After having outlined our structurationist account of the social practice of foresight in organizations, we can now return to the issue of the high fragmentation in the field of foresight research. Earlier in this paper we claimed that this fragmentation rests upon a series of dualisms which are in fact rather conceptual than substantive. Following Giddens, we argue that there exists no ontological 'chasm' between the individual and the organization, between foresight as a capability and foresight as an activity/process, as well as between foresight and hindsight. Understood as a shared social practice, foresight in organizations is both individual and organizational, a capability and a bundle of activities. Moreover, it is tightly interwoven with the past. How the theory presented can conceptually resolve these dualisms is discussed in the final part of the paper.

3.8 Resolving Conceptual Dualisms

In the first part of this paper, we learned that the field of foresight research is highly fragmented and that progress has been hampered by a series of conceptual dualisms. We now return to these dualisms to discuss how they can be resolved in the light of our practice-based theory of foresight in organizations informed by structuration theory.

3.8.1 Individual versus Organizational Foresight

In our review of the literature on managerial and organizational foresight, we showed how researchers have either focused the individual and psychological (e.g., Whitehead, 1933; Pina e Cunha et al., 2006, MacKay & McKiernan, 2004) or upon organizational dimensions of foresight in organizations (e.g., Andriopoulos & Gotsi, 2006; Johnston, 2001; Tsoukas & Shepherd, 2004a; Major et al., 2001). However, how these two dimensions interrelate has not been explicitly taken into account up to now.

We argued that the individual-organizational distinction resembles the classical dualism between the individual actor and society in the field of social theory (see Table 3-1). One of the most prominent faces of the dualistic view was Émile Durkheim. He considered society as something which is 'external' to the individual with characteristics that are inherently distinct from those of individual agents (see Giddens, 1979: 50). One of the main arguments put forward by scholars advocating for a distinction between the individual and society is that social collectives normally pre-exist and post-date the lives of their members. They subsequently reason that society, i.e. social wholes, cannot be solely the creation of individuals. Traditionally, clarifying this relation between the individual and society has been the primary concern of those concerned with Hobbes's problem of order (e.g., Parsons). The key question is: How do individuals with a free will create an ordered social whole? Answers forwarded have been variegated proposing norms, coercion, or exchange relations as integrative mechanisms. Basically, answers to Hobbes's problem of order have either emphasized the role of society as a harmonizing 'force' which socially integrates the conduct of individuals to form a coherent whole or stressed that social phenomena should exclusively be explained in terms of individuals' qualities and conduct. The latter approach is also known as 'methodological individualism.'

Structuration theory argues that society or collective phenomena are neither entirely the creation of individual actors nor the result of some 'external forces' aligning the conduct of its members (see Giddens, 1984: xxi). Moreover, social collectives may not be characterized by harmony and integration to the extent which Parsons and others suggest (see Giddens, 1979: 102). To define the relationship between the individual and society, Giddens – in an allusion to Marx – contends that "men make history, but not in circumstances of their own choosing" (Giddens, 1984: xxi). As subjects, we are born and to some extent socialized into particular parts of society. However, the stability of orderliness in society is not, as functionalist thinkers suggest, warranted by actors behaving as 'structural dopes' to fulfill some societal needs. Instead, it is warranted by societal members' accomplishments as active and knowledgeable agents who understand a great deal of what is going on and how they can influence the course of events (Giddens, 1979: 5). This does not mean that society or social phenomena are always and fully intended by their constituting members. It is rather a mix of intended and unintended consequences resulting from purposive human conduct that leads to stability and change in society and the constitution of particular social phenomena.

Concerning the topic of foresight in organizations, the key question is how individual foresight is related to organizational foresight, and vice versa. Giddens's abstract and general solution to this dualism suggests that organizational foresight is neither the 'sum' of individual foresight nor does it exhibit qualities which cannot be somehow attributed to the members of an organization as purposive agents. Our account depicts foresight as an everyday routine activity, i.e. a practice performed by organizational members qua knowledgeable agents trying to retain their sense of 'ontological security.' As an organizational phenomenon, foresight is constituted through organizational members' active engagement in the social practice of foresight rather than through members automatically living up to some sort of organizational 'need' of foresight arising from organizations' struggle for survival. Members of an organization do not engage in foresight only because they are normatively bound to do so, i.e. because they should. Organizational foresight is a mix of intended and unintended consequence of individuals trying to self-interestedly cope with uncertainty through engaging in 'foresight talk,' i.e. by means of sharing their anticipations, expectations, concerns, fears, and so forth with others. Whether organizations as social collectives can foresee upcoming opportunities or risks depends considerably on the communicative, political, and normative context in which members of the organizations find themselves. It is the specific set of explicit and tacit rules related to

'future talk' which enables and constrains the engagement of individual members in the practice of foresight. For example, the institutionalization of opportunities for sharing views and ideas can increase an organization's cognitive diversity to anticipate future events. On the other hand, a political culture based on authority, subordination, and coercion can constrain an organization's overall foresight capacity as members' willingness to share their views and ideas is blighted.

3.8.2 Foresight as an Activity/Process versus Foresight as Capability

The second dualism we found in the literature on foresight is between foresight as an activity/process (e.g., Andriopoulos & Gotsi, 2006; Johnston, 2001) and foresight as a capability (e.g., Tsoukas & Shepherd, 2004a, 2004b). The latter has also been referred to as 'foresightfulness' or as a 'background skill,' which is widely distributed in organizations and carried out spontaneously by its members.

Earlier in this paper, we argued that this second dualism has its socio-theoretical counterpart in the distinction between action/agency and structure. We pose the questions: Are individual actors completely 'free' in their actions (a view which is also known as voluntarism) or is their conduct determined to some extent by the structural-institutional context (a view which is also referred to as determinism)? If actors draw upon structures in their conduct, of what type are these structures then? The relation between action/agency on the one hand and structure on the other has been the subject of a long-lasting and still ongoing dispute between social theorists.

Traditionally, social theory scholars have given primacy to either side while neglecting or downplaying the role of the other. To resolve the action-structure dualism, Giddens turned to the concept of 'practice.' In structuration theory, practice represents social actors' regularized conduct that is enabled and constrained by practical rules and available resources. However, unlike routine, the concept of practice presupposes that actors do not act like automata but as knowledgeable and reflexive agents. The actors, primarily through their practical consciousness, make structures as 'sets of rules and resources' (Giddens, 1984: 25) count in their day-to-day conduct. This implies that, in structuration theory, structures are "of a 'virtual' existence meaning that they only exist as "instantiations in [..] practices and as memory traces orienting the conduct of knowledgeable human conduct" (Giddens, 1984: 17). Furthermore, to replace the unidirectional relationship between structure and action as found in most writings of

classical social theorists, Giddens introduces the notion of the 'duality of structure.' He argues that structural properties "are both the medium and outcome of the practices they recursively organize" (Giddens, 1984: 25). This implies that when actors appropriate rules and resources in their conduct, they render these structures meaningful. This implies that the moment of conduct is also the moment of structural reproduction.

In our practice-based account of foresight in organizations, we have made considerable efforts to work out how different structural dimensions (signification, domination, and legitimation) relate to the 'future talk' among actors. In organizations, the sharing of 'memories of the future' is enabled and constrained by communicative, political, and normative 'structures' mobilized by competent actors in interactions. Whether we speak of foresight as a collective activity or as a process depends on how structured and formal the interactions are. A foresight process is characterized by a rather clear set of steps and rules, while foresight as a dispersed organizational activity is much less formal and less schematic. Foresight as a capability contrasts with the activity and process views of foresight since the former primarily represents the structural side of the practice of foresight in organizations. Foresight as a capability refers to the structural disposition of an organization allowing its members to enact foresight on a day-to-day basis.

3.8.3 Foresight versus Hindsight

Finally, previous research has treated foresight and hindsight as rather distinct topics. The key reason for this has been the epistemological asymmetry between the two. It has been argued that knowledge on the past is inherently different from 'knowledge' on the future. It is generally agreed that the future, unlike the past, cannot be known (MacKay & McKiernan, 2004) and, more technically, that hindsight and foresight differ in the information available (Fischoff, 1975).

Compared to the two dualisms already discussed, the dualism between hindsight and foresight has received limited attention from scholars of social theory. Although Giddens has stressed the importance of accounting for issues of time and space in social theory (see Giddens, 1984: 132), his own elaborations have almost exclusively focused on the spacio-temporal trajectories of social practices, i.e. the reproduction of practices across time. The issue of time experience in practice is not

discussed. It is only more recently that the dimension of time has received increased attention in the social sciences. Except for a few seminal publications on this topic, such as Barbara Adam's (1994) book '*Time and Social Theory,*' the academic discourse has mostly taken place in newly established journals such as '*Time & Society*' (since 1992).

Given that time philosophers' writings have had a strong impact upon many of the newer threads of social theory, it is quite surprising that social theory has until recently only marginally elaborated on the topic of time. It was especially Martin Heidegger's treatise '*Sein und Zeit*' (1927) which contributed significantly to the establishment of hermeneutics and phenomenology and the creation of the practice school of social theory. He has argued that time is an existential dimension of 'Dasein' (see also Giddens, 1984: 34). However, despite the high number of references made to Heidegger's existential view of time, the topic has not been fully developed in social theory.

We do not deny the claim that the future cannot be known. However, we believe that the academic discussion about the epistemological asymmetry between the past and the future is lopsided. The key concern of scholars active in the field of *Foresight Studies* – the sub-discipline of the social sciences concerned with issues of how humans and organizations can develop 'knowledge' about the future – has been how foresight practitioners deal with the future's indeterminacy and how organizations can create 'knowledge' about the future. We believe that this view needs to be complemented by investigating time at the level of experience and praxis. Earlier in this paper, we argued that on the level of experience, time is rather a seamless thread than compartmentalized into the distinct categories of the past, present, and future. Our practical consciousness simultaneously engages with all three dimensions to form a coherent experience of time which stretches from the past into the future. The future is experienced as a continuation – but not necessarily a repetition – of the present and past. On the level of praxis, foresight and hindsight are also tightly interwoven. First, in order to be able to 'go on' and cope with life, humans need to maintain a sense of ontological security. This is primarily grounded in our general experience of the future as normally not being radically different from the past and that past 'recipes' of conduct will also work in the future. Our experiences of the past, stored as 'typifications,' provide us with means for looking into the future. Second, our practical consciousness is constantly engaged in the ongoing rationalization of conduct. It permanently supplies and updates the reasons we hold for our doings. It is through

reasons that human conduct becomes teleological, i.e. directed towards the realization of particular ends. This does not imply that we can always attend to our reasons and discursively express them when asked to do so. Reasons comprise our tacit commitment towards particular ends, allowing us to overcome emerging obstacles to realizing these ends. Third, as per definition, our motifs supply us with the potential for action in the future. Motifs are, similar to reasons, primarily tacit. Deeply rooted in our self-identity, motifs can be grounded in past events, our desires and wishes, or our plans for the future. Thus, what we 'foresee' for the future may depend on our particular experiences in the past, especially if we are in a position to enact that particular future through realizing our motifs.

In organizations, social actors carry along their past work and life experiences. What members of an organization are able to 'foresee' and anticipate depends largely on their cognitive schemes and 'typifications.' Since the interpretative schemes tend to become aligned through ongoing processes of socialization, organizations may become blind to more radical events and changes. Thus, if viewed as a social practice, an organization's ability to look into the future depends very much on the cognitive diversity, i.e. the constructive conflict between different views. The richer the set of experiences and cognitive schemes of its members, the more likely an organization can anticipate important changes or detect promising business opportunities to actively shape its future.

3.9   Discussion and Conclusion

In this paper, we sought to develop a practice-based theory of foresight in organizations in order to transcend fragmentation and prevalent dualisms in research on foresight and to provide this study field with a solid theoretical basis. We started with a short review of the body of literature on foresight in organizations to explore the main research streams. We found that scholars have approached the topic from different angles and used the term 'foresight' to denote different things. However, the field's fragmentation is not primarily the result of terminological carelessness, but the consequence of various conceptual dualisms underlying the various accounts on foresight. A first dualism is that of individual vs. organizational foresight. While the notion of foresight originally referred to a trait (e.g., Whitehead, 1931) or task (e.g., Fayol, 1916) of the individual manager, foresight was later also conceptualized as an

organizational process (e.g., Johnston, 2001) or an organizational capability (e.g., Tsoukas & Shepherd, 2004a; Major et al., 2001). The second dualism we explored was that between foresight as a process, activity, or task on the one hand and foresight as a capability or trait on the other. This distinction exists at both the individual-managerial and the organizational levels. The third dualism we discovered is between foresight and hindsight. Generally, there are scholars who regard the two as distinct due to the inherent epistemological asymmetries between knowledge on the past and knowledge on the future (e.g., MacKay & McKiernan, 2004), and those who argue that foresight and hindsight are in fact very similar, as both are stored in the form of memories (e.g., Ingvar, 1985).

Since the three discovered dualisms resemble those prevalent in classical social theory, we argued that a turn to the synthesizing accounts of practice scholars of social theory, and Giddens's (1976, 1979, 1984) theory of structuration in particular, can inspire the development of a practice-based theory of foresight that avoids these dualisms. Consequently, we had to clarify the roles that abstract and general 'ontologies of the social' such as structuration theory can play in the process of developing more substantive theories. We argued that social theories can be employed either as 'sensitizing devices' (e.g., Blumer, 1954) to inform the development of 'theories of the middle range' (Merton, 1957) or as 'templates' to develop what we called 'substantiated theories.' Substantiated theories, as the term suggests, are substantiations of a particular social theory in relation to a particular topic by means of disciplined theoretical reflection rather than empirical inquiry.

After having clarified key methodological issues related to the use of social theory in general and structuration theory in particular in meso-level theorizing, we presented our practice-based theory of foresight in organizations. In a first step, we offered a practice-based definition of 'foresight' and discussed its defining characteristics. From a practice perspective, foresight is the ongoing social process of constructing plausible and actionable 'memories of the future' to maintain a sense of identity and ontological security. In a second step, we then introduced our own structurationist account by theorizing three basic dimensions of foresight as practice: the personal-existential, socio-interactive, and structural-institutional dimensions. To explore the personal-existential and socio-interactive dimensions of foresight, we made use of Giddens's 'stratification model' of the actor. This simple yet powerful model allowed us to existentially ground human foresight in actors' ongoing processes of rationalization and motivation. At the socio-interactive level, the same model

allowed us to analyze foresight as the practice of sharing anticipations, views, fears, and so forth with others in discursive interactions. We argued that such sharing, like any practice, is reflexively monitored, rationalized, and motivated. In a next step, we complemented these two dimensions of foresight with a third by bringing into play the structural-institutional aspects involved in day-to-day social encounters in which actors discursively share their visions, ideas, predictions, and so forth. We adopted Giddens's general model of the dimensions of practices to explore how existing interpretative schemes, power, and norms within the organization impact on the practice of sharing 'images of the future' with others.

In a final step, we returned to the dualisms unveiled in the paper's first part to discuss how our structurationist account of foresight transcends them. We showed how organizational foresight emerges from individuals sharing their personal views in discursive encounters, how structural dimensions of interaction contexts both enable and constrain such 'future talk,' and how foresight is grounded in past experiences stored in cognitive schemes as 'typifications.'

3.9.1 Contributions

This paper contributes to several research streams. First, our practice-based theory of foresight in organizations contributes to the 'practice turn' in social research (Schatzki et al., 2001). It complements, for example, practice approaches to strategy (e.g., Mintzberg, 1987; Hendry, 2000; Jarzabkowski: 2000, 2003, 2004; Whittington, 1996, 2002, 2003; Samra-Fredericks, 2003), sense-making (e.g., Weick, 1969, 1993, 1995b), sense-giving (e.g., Gioia & Chittipeddi, 1991), and storytelling (e.g., Boje, 1995). Although there have been earlier attempts to approach the topic of foresight from a 'practice' perspective (e.g., Slaughter, 1995; Schwandt & Gorman, 2004; Tsoukas & Hatch, 2001), our account is the first to comprehensively theorize the topic. It provides a solid basis for other scholars of foresight to further explore the practice of foresight in organizations.

Since the introduction of structuration theory in the second half of the 1970s, organization scholars have adopted Giddens's ideas to explore topics as diverse as organizing (e.g., Ranson et al., 1980), technology use in organizations (e.g., Orlikowski, 1992; DeSanctis & Poole, 1994), communication (e.g., Yates & Orlikowski, 1992; Orlikowski & Yates, 1994), discourse (e.g., Heracleous & Hendry,

2000), organizational knowing (e.g., Hargadon & Fanelli, 2002; Orlikowski, 2002; Goodall & Roberts, 2003; Black et al., 2004; Mengis & Eppler, 2008), learning (e.g., Holmqvist, 1999; Berends et al., 2003; Bresnen et al., 2004), and adaptation (e.g., Staber & Sydow, 2002; Howerd-Grenville, 2005). Our account establishes the topic of foresight as an additional thread investigated from a structuration perspective. It contributes to the adoption of structurationist thinking among organization scholars. Furthermore, our account can inspire and help scholars investigating other topics through the structuration lens to employ structuration theory in their accounts.

From a methodological perspective, this paper makes a valuable contribution to the theory building thread within organization studies (e.g., Whetten, 1989; Bacharach, 1989; Sutton & Staw, 1995; Weick, 1995a). By clarifying the different roles of social theory vis-à-vis meso-level theorizing (sensitizing device vs. template) and the problems of indeterminacy arising in different modes of theorizing informed by social theory (indeterminacy of translation vs. indeterminacy of specification), we prepared the ground for a more deliberate use of social theory in building more substantive theories in the fields of organization and management. In addition, by making explicit the requirements and implications of translating structuration theory into meso-level theories, our account provides organization scholars puzzled by the complexity and comprehensiveness of Giddens's theoretical project with guidance regarding the use of structuration theory in their theory building efforts. Most importantly, it explicates what scholars need to consider in order to preserve the overall 'spirit' of structuration theory when importing structurationist concepts and ideas into their accounts.

3.9.2 Limitations

Our account also has some shortcomings. To achieve our goal of developing a theory of foresight that transcends existing dualisms, we had to develop an account that is comprehensive enough to include the different aspects and views of foresight, but which is also theoretically deep enough to reconcile the underlying dualisms. As a result, our theory retains much of structuration theory's conceptual breadth and complexity. In addition, we had to employ Giddens's terminology in our explanations. Consequently, organization scholars who are less proficient in social theory in general and structuration theory in particular may find our account somewhat hard to

comprehend. As a result, scholars may be reluctant to adopt our theory as a basis for further exploring the topic of foresight in organizations.

Second, we have not empirically validated our propositions. Although we claim that our account is empirically valid, this claim is based solely on our assumption that a substantiated theory to some extent profits from the empirical validity of the social theory that informs its development. However, this does not compensate for 'testing' our theory in real-life settings. Given the multidimensionality and complexity of our theory, this may be difficult to achieve.

Third, our theory does not take the idiosyncrasies of particular organizations into account. However, setting the boundaries of our theory very wide may, according to Whetten (1989), jeopardize its plausibility and credibility. We do not believe that this is the case, since the goal of our study was not to theorize empirical particulars, but to provide a theory that transcends existing conceptual dualisms. However, there is in fact a shortcoming in relation to our theory's high generality, which arises from the need to retain some distance from empirical particulars in order to account for the many different views of foresight we sought to reconcile. Thus, our account may be subject to the same criticism which has been raised against general and abstract social theory. Our theory, like general social theories, can be made to fit with empirical data easier than more specific accounts, which makes it difficult to come up with empirical instances in which our propositions do not hold. In addition, in the case of the existence of another general theory of foresight, it would be difficult to assess its relative explanatory superiority, as both could supply similarly consistent analyses of the phenomenon.

Fourth, the process of translating structuration theory into a substantiated theory of foresight is subject to the problem of the 'indeterminacy of specification.' Specification indeterminacy arises from the fact that we had to substantiate the highly abstract and general concepts of structuration theory with regard to our subject matter. For instance, we had to specify Giddens's notion of rationalization in relation to the personal-existential and the socio-interactive dimensions of foresight. The only way to do this was through disciplined theoretical reflection on how the concept of rationalization relates to these dimensions of foresight. Such a process of specification is always somewhat arbitrary. It is always possible that somebody else might have specified the dimensions of structuration theory differently.

While the comprehensiveness and complexity of our theory might already constitute a considerable hurdle for the adoption of our theory by organization

scholars, this hurdle is likely to be even greater for practitioners. Although we claim that our findings are interesting and valuable for practitioners looking to 'manage' foresight in their organizations, it may be difficult for them to see how they can make use of our ideas and propositions to improve foresight in their companies.

3.9.3 Future Research Avenues

Our account provides an array of opportunities for future research. First, scholars can further substantiate the dimensions of our theory by consulting additional literature, perhaps also from other areas of study, and/or by empirically exploring our theory's dimensions and conceptual parts. In addition, scholars proficient in Giddens's social ontology may critically review our theory to challenge the propositions made and to offer alternative ways to substantiate structuration theory in relation to the topic of foresight in organizations. We welcome critical engagement in our account, as we consider our study as an 'interim struggle' (Weick, 1995a: 385), rather than as a completed project.

Second, at a methodological level, scholars proficient in a particular social theory can discuss the implications of using alternative social theories in theory development, as we have done for structuration theory. To date, relatively few organization scholars have employed social theories to advance their subject of study. We believe that two primary reasons for this are that organization scholars are either not fully aware of the interpretative and explanatory values of social theories, or that they don't know how to employ particular social theories in their work. While the merits of using social theory for developing organization theories can be demonstrated by extending the number of publications informed by social theory, the latter requires scholars who are proficient in particular social theories to provide some guidance for their use by elaborating more extensively on the methodological issues than they have done to date.

Finally, to establish the practice thread in mainstream organization research, scholars need to develop practical tools that (a) allow practitioners to 'read' and analyze their organizations from a practice perspective, and (b) enable them to 'intervene' and improve certain practices, such as foresight. We hold that practice approaches have to date been mostly academic endeavors due to the lack of such tools. When managers are supplied with tools that allow them to achieve measurable

improvements in their organizations, it is possible that the current 'science push' of ideas will become inverted to a 'practitioner pull' as there will be a continuous demand for improvement of these tools. With regard to the development of such tools, Giddens's (1991b) more recent writings on 'life politics' could be an inspirational starting point.

4.   Resolving High Identity Ambiguity through Identity Drafting: An Ethnographic-Structurational Study

Daniel Broger

Abstract: *In this paper, we explore how Anthony Giddens's theory of structuration can be applied in order to analyze organizational members' social practices as they create, share, negotiate, and institutionalize identity drafts to resolve identity ambiguity. The newly introduced construct of 'identity drafts' denotes socially constructed, provisional, and future-oriented self-conception blueprints that comprise the key elements with which to shape or recreate an organization's identity. We argue that organizational members engage in the collective praxis of identity drafting when identity ambiguity is high and a managerial 'retreat' into culture for cues and engaging in sense-making or sense-giving cannot resolve identity ambiguity. To identify and analyze the social practices involved in identity drafting, we conducted an ethnographic study of the set-up of a corporate venture in a large Swiss industrial group. We used structuration theory as an analytical lens to make sense of team members' conduct. Despite the broad adoption of structuration theory among organization and management scholars in recent years, we found that researchers employing Giddens's social ontology have paid little attention to the epistemological and methodological implications of employing his theory in empirical research projects. We seek to fill this gap by assessing structuration theory's status as a 'research programme,' by presenting a set of general rules for employing Giddens's synthesizing social theory in empirical research projects, and by commenting extensively on the research strategy and design we adopted for our study. This study seeks to inform scholars of the premises, pitfalls, and prospects of using structuration theory in empirical research and, thereby, to foster the confidence and interest among scholars to employ Giddens's rich analytical framework to gain new insights into organizational phenomena.*

Keywords: *organizational identity, identity ambiguity, identity drafts, practice view of organizations, structuration theory*

4.1 Introduction

Organizational identity has attracted considerable attention from organization scholars in recent years, since it is assumed to play a key role in an array of organizational events and issues, such as mergers and acquisitions (e.g., Empson, 2004), strategic change (e.g., Gioia & Thomas, 1996), employee motivation (e.g., Dutton et al., 1994), and knowledge sharing (e.g., Empson, 2001). Organizational identity is generally understood as the collective self-conception or self-image by which organizational members define themselves as a social group vis-à-vis their external environment and their competitors (Alvesson & Empson, 2008). Traditionally, organizational identity has been either conceptualized as a reified and anthropomorphic object (e.g., Cheney & Christensen, 2001) or regarded as a process by which an organization's identity is socially constructed and stored in the form of narratives (e.g., Humphreys & Brown, 2002; Llewellyn, 2004; Chreim, 2005; Brown, 2006). It has been argued that identity narratives constitute the fabric of an organization, which, as a 'narrative infrastructure,' enables and constrains organizational action (Deuten & Rip, 2000). According to Humphrey and Brown (2002), such narratives are in constant flux and subject to continuous collective editing.

As the overall global economic environment and markets grow increasingly turbulent and with 'hypercompetition' demanding permanent strategic maneuvering (D'Aveni, 1994), an organization's identity is regularly jeopardized. Furthermore, an organization's identity can also be threatened by organizational events, such as mergers and acquisitions (e.g., Bartels et al., 2006), leadership successions (e.g., Balser & Carmin, 2009), organizational restructurings (e.g., Bartunek, 1984), or the creation of a new division or business within an organization (e.g., Brown & Gioia, 2002). Such 'identity threats' (e.g., Eslbach & Kramer, 1996; Ravasi & Schultz, 2006) or otherwise induced identity ambiguity can lead to changes in an organization's identity (Corley & Gioia, 2004). Generally, identity ambiguity arises when members of an organization hold multiple possible interpretations about which core features should define the changed organization (Corley & Gioia, 2004: 173). To 'refreeze' (Lewin, 1951) the organization's identity, its members need to actively engage in collective identity reconstruction to preserve or restore a sense of 'ontological security' (Giddens, 1984) in the organization, i.e. a basic, practical understanding of how to continue into the future.

Previous research on how organizations resolve identity ambiguity has suggested that it is gradually restored as managers engage in sense-making and sense-giving activities (Gioia & Chittipeddi, 1991). In these cases, the organization's culture provides a rich source of cues (Ravasi & Schultz, 2006). However, while this may be an appropriate strategy if identity ambiguity is moderate and manageable, it is a less promising avenue in situations of high identity ambiguity. Identity ambiguity is high, for instance, when there is radical organizational change or in a start-up where team members have not yet had a chance to form a culture and shared identity. In such situations, managers cannot simply 'retreat' into some shared culture or engage in sense-making and sense-giving activities to guide the way out of identity ambiguity. Furthermore, in situations of high identity ambiguity, managers themselves are often bewildered or clueless about what the organization's future identity can and should be.

During our field study of the everyday identity work in a corporate venture of a large Swiss industrial conglomerate, we discovered that team members created what we call 'identity drafts' to resolve high identity ambiguity. Identity drafts are alternative, provisional, and future-oriented blueprints of self-conceptions comprising the key elements with which to shape a possible new identity for the organization. Created, shared, and negotiated during social interactions, identity drafts are socially constructed understandings of what the organization can or will become in the mid-term to long-term future. As concrete 'memories of the future' (Ingvar, 1985), identity drafts are shared and negotiated with other members of the organization in day-to-day interactions. They provide temporary answers to questions such as 'What do we want to be?' (Albert & Whetten, 2004: 90) and 'What will/can/should the organization's self-conception be in the mid-term to long-term future?'

Drafting provisional identities is not an elitist and hegemonic project performed by futurists or an organization's senior managers. Instead, it is a distributed, social project in which every organizational member has a stake (Bell, 2003). Organizations' dominant members and groups can employ their positional power to mobilize various types of resources as 'modalities' of domination (Giddens, 1984: 29) to influence the collective *praxis* of identity drafting. At the same time, organizational members with less formal power always retain some capacity to author and propagate identity drafts that oppose impositions from the center (Rhodes, 2000: 227; Humphreys & Brown, 2002: 424). Identity drafts are thus often highly contested and in constant flux (Gioia et al., 2000), as organizational members continuously renegotiate and modify them during their interactions with other members of the organization, company

stakeholders, and artifacts such as media texts. New identity drafts are created and existing ones are shared and negotiated during day-to-day social encounters leading to the affirmation, alteration, or dismissal of certain views. Hence, an organization's set of identity drafts is the outcome of complex interactive social processes that are beyond complete managerial control.

Traditionally, research informed by the narrative-procedural view of identity work has linked identity (re)construction to organizational power struggles. From a socio-theoretical perspective, these accounts have strongly built upon the writings of postmodernists, such as Foucault (1977). We believe that this has resulted in a lopsided view of identity work for at least two reasons. First, these accounts one-sidedly stress the role of power while largely neglecting the role of the structural-interactional context as organizational members engage in the social (re)construction of organizational identity. Second, being postmodern and deconstructionist, these accounts tend to "work with 'flat' or 'horizontal' social ontologies in which the processual character of social reality totally occupies the analytical and explanatory space available" (Reed, 1997: 24). The organization is deconstructed into a "miniaturized, decentered, and localized discursive […] practice" (p. 26) and subject to "an endless […] series of power games" (p. 27). These accounts exhibit a 'planar' social ontology that analytically conflates agency and structure and neglects the inherent reciprocal relationship between agency and structure in the constitution of social life. We subsequently propose employing Anthony Giddens's theory of structuration to untangle what has been conflated as well as to provide a fresh perspective on the social practices involved in the social fabrication of identity drafts in organizations. Giddens's structurationist 'ontology of the social' (Bryant & Jary, 1991: 27) provides a rich interpretative framework for analyzing and interpreting the role of both structure and agency in the collective *praxis* of identity drafting. It supplies social researchers with powerful 'sensitizing devices' (Giddens, 1984: 326) for exploring and interpreting the everyday doings of social actors as it offers an array of "conceptions of the nature of human social activity and of the human agent which can be placed in the service of empirical work" (Giddens, 1984: xvii). Giddens's socio-theoretical account is a rich source of 'sociological imagination' (Mills, 1959) for researchers seeking to examine the everyday conduct of organizational actors and to explore the nature of organizational phenomena. Furthermore, as a 'grand synthesis,' structuration theory avoids the fallacies of both the objectivist and narrative-procedural conceptions of organizational identity. Like other social theorists

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of practice such as Bourdieu (1972, 1980), Giddens has placed the concept of social practice at the center of his theoretical framework in order to transcend a number of impedimental dualisms such as agency versus structure, objectivism versus subjectivism, and determinism versus voluntarism. It is argued that social practices provide the reconciliatory ontological unit in which agency and structure are synthesized by knowledgeable social actors (Giddens, 1979, 1984) employing their 'sense pratique' (Bourdieu, 1980). Unlike any other social theory, adopting structuration theory as primary 'analytical framework' (Reed, 1992) allows social researchers to disentangle the agential and structural dimensions of human conduct while fully respecting that humans are knowledgeable social actors who are enabled and constrained by the structural context of (inter)action.

To investigate actors' routine doings, i.e. practices involved in the social construction of identity drafts in organizations, we conducted an ethnographic study of a corporate venture in a large Swiss industrial group. After identifying regularly occurring activities related to identity drafting and formulating a typological framework of practices, we employed Anthony Giddens's (1976, 1979, 1984) theory of structuration as the primary analytical lens for exploring the role of agential and structural-contextual dimensions in the constitution of these practices. This allowed us to generate a deep understanding of how and why new identity drafts emerged, how they were reproduced, modified, or discarded, and how venture team members attempted to institutionalize their favorite identity drafts. In particular, we investigated how members of the organization, as knowledgeable agents, drew on (tacitly) shared rules and resources ('structures,' in Giddens's terms) to proceed in interactional encounters related to identity drafting. We explored how team members draw upon shared interpretative schemes, 'authoritative' or 'allocative' resources, and socially shared norms as 'modalities' of structuration (Giddens, 1984: 28) in order to share and negotiate identity drafts with others as well as to propagate and enforce their views by mobilizing resources and legitimating particular identity drafts.

Whether or not a typology already constitutes a theory or a theoretical contribution has been a disputed topic among organization scholars. While some have accepted typologies as distinct forms of theory (e.g., Doty & Glick, 1994), others have generally argued against their status as theories (e.g., Sutton & Staw, 1995) or have regarded them as classification schemes with limited theoretical value (e.g., Rich, 1992). Proponents of the 'typologies-are-theories' view suggest that other typologies, such as those of Porter (1980, 1985) or Mintzberg (1979, 1983), have become very

popular among practitioners and that they have contributed substantially to progress in organization research (Doty & Glick, 1994). Furthermore, they argue that these typologies have been empirically scrutinized and that they are a valuable and proven source of 'disciplined imagination' (Weick, 1989) in theory building endeavors. In line with this, we contend that the typology presented in this paper constitutes a valuable theoretical contribution. While the practices identified in this study provide the building blocks for understanding the praxis of identity drafting in organizations, they can also be used for building other practice-based theories of identity work in organizations or submitted to empirical testing.

The presented account contributes to the existing body of research on organizational identity in two ways. First, it introduces 'identity drafts' as a new concept to explain how organizations restore a shared sense of identity in cases of high identity ambiguity. Second, this paper adopts a unique analytical perspective on identity work. While scholars have previously analyzed identity (re)construction from a process perspective, we found no practice-based account of identity work in organizations that draws upon structuration theory as its primary analytical lens. This paper seeks to close this gap. By identifying the social practices involved in identity drafting and by exploring, from a structuration perspective, how organizational members are simultaneously enabled and constrained by the structural-interactional context as they create, share, negotiate, and institutionalize identity drafts, we provide a holistic view of identity construction in situations of high identity ambiguity, avoiding both the deterministic-objectivist and voluntaristic-subjectivist fallacies of previous accounts. Our contribution is timely, as the 'practice turn' in social research (Schatzki et al., 2001) is still under way. However, the findings from our empirical study are not only of value to organization scholars, but also to managers. A better understanding of the social practices and the role of agential and structural-interactional dimensions involved in identity drafting provides managers with the means to, at least to some extent, guide the social construction of organizational identities. It sensitizes managers towards the complex, indeterminate nature of identity (re)construction in circumstances of high identity ambiguity, while providing them with a residual sense of managerial 'control' that is helpful to retain a leadership role in situations in which the organization's identity has been disrupted and its members have to collectively create a new identity.

The paper is structured into five parts. In the first part, we provide an overview of the existing body of literature on organizational identity and discuss the ongoing

'practice turn' in organization theory. The second part focuses on the epistemological and methodological implications of structuration theory. We assess structuration theory's status as a 'research programme,' revisit Giddens's writings to define some general rules of structurationist inquiry, and review Pozzebon and Pinsonneault's (2005) learnings from applying structuration theory in IT research. In the third part of the paper, we comment extensively on the research strategy and research method that we employed. Since Giddens and organization scholars have only minimally commented on these issues, we discuss structuration theory's epistemological and methodological implications (part two) as well as our research strategy and design (part three) in detail. This shortcoming, in our view, has been one of the main obstacles to a broader adoption of structurationist thinking among organization researchers. In the fourth part, we present the findings from our 9-month field study of the social practices involved in the social 'fabrication' of identity drafts. We provide a typology of the practices involved and explore each practice from a structuration perspective. Finally, we discuss our findings, our contribution to the extant literature, our study's limitations, and pertinent avenues for future research.

4.2   Literature Review

In this section, we review the relevant literature on organizational identity – a concept which is still elusive (Gioia et al., 2000: 64). In addition, we review the 'practice turn' under way in social research (Schatzki et al., 2001) to prepare the ground for our practice-based account of identity construction in situations of high identity ambiguity.

4.2.1   Organizational Identity

In the last two decades, there has been a large increase in the amount of research on organizational identity. Albert and Whetten (1985) vaguely defined organizational identity as that which is central, distinctive, and enduring about an organization. An organization's identity provides answers to questions such as 'Who are we as an organization?' or 'Who do we want to be as an organization?' (Albert & Whetten, 1985; Albert et al., 2000). Organizational identity can thus be defined as members of an organization's collective sense of 'who we are' (Albert & Whetten, 1985; Stimpert

et al., 1998). At an individual level, organizational identity is a person's cognitive image of the organization he or she works for (Dutton et al., 1994).

The concept of 'organizational identity' has been analytically distinguished from that of 'organizational image' (Dutton & Dukerich, 1991; Whetten, 2006). While the former is understood as the self-perception and self-image held by the members of an organization, the latter has been used to describe outsiders' perceptions of an organization (Berg, 1985), what members of an organization believe others think of the organization ('construed external image'; Dutton & Dukerich, 1991; Dutton et al., 1994), or the way organizational elites would like outsiders to see their organization ('projected image'; Whetten et al., 1992; also Gioia et al., 2000). Some scholars have suggested that these two concepts are interrelated. For example, Scott and Lane (2000) contend that organizational identity emerges from "complex, dynamic, and reciprocal interactions among managers, organizational members, and other stakeholders" (p. 43). An organization's identity is, inter alia, constructed and altered in interactions with outsiders (Berg & Gagliardi, 1985; Gioia, 1998).

Albert and Whetten's (1985) original definition of organizational identity suggests that identity is a rather fixed property of organizations. Other scholars have criticized this view and have proposed that identity is a fluid phenomenon (e.g., Gioia & Thomas, 1996; Gioia et al., 2000). The difference is vividly captured in the distinction between 'enduring identity' and 'continuity of identity.' While the static view of 'enduring identity' assumes that an organization's identity is stable in its entirety over time, the notion of 'continuity of identity' confines the idea of stability to the core aspects of an organization's identity. Continuity of identity accepts that non-core elements of an organization's identity may well change over time without jeopardizing or disrupting the organization's identity per se. While Gioia et al. (2000) argue that it is useful to distinguish between the two, Ashford and Mael (1996) believe that both concepts essentially denote the same thing.

Previous research has identified a series of internal or external events that can jeopardize an organization's identity. Scholars have referred to such events as 'identity threats' (e.g., Elsbach & Kramer, 1996; Ravasi & Schultz, 2006). For example, mergers and acquisition (M&A) activities can be identity-threatening events (Bartels et al., 2006), but also leadership successions (Balser & Carmin, 2009), organizational restructurings (Bartunek, 1984), and the creation of a new division within an organization (Brown & Gioia, 2002). Such events can induce conflict and disagreement among the members of a firm regarding the organization's identity. In

the case of M&A activities, research suggests that a good 'cultural fit' between the merging entities can alleviate identity threats (Cartwright & Cooper, 1993). In general, it is an organization's culture that provides a source of cues for sense-making in situations of identity threats (Ravasi & Schultz, 2006).

The concept of 'identity threat' is closely related to that of 'identity ambiguity.' The notion of identity ambiguity suggests that, in events of a disruptive losses or changes in an organization's identity, members of the organization may have "multiple possible interpretations about which core features should define the changed organization" (Corley & Gioia, 2004: 173). Thus, while identity threats inevitably result in identity ambiguity, the latter can also occur in the absence of a particular identity-threatening event. However, identity ambiguity, like identity threats, induces changes in an organization's identity (Corley & Gioia, 2004). Contrary to the lengthy processes involved in normal incremental identity change (Albert & Whetten, 1985), identity ambiguity calls for a timely 'refreezing' (Lewin, 1951) of the organization's identity. It has been suggested, that managers have to engage in sense-making and sense-giving activities (Gioia & Chittipeddi, 1991) to reestablish a shared sense of identity among the members of an organization.

While sense-making (Weick, 1969, 1993, 1995b), sense-giving (Gioia & Chittipeddi, 1991), and a 'retreat' into culture for cues (Ravasi & Schultz, 2006) may provide an appropriate strategy when identity ambiguity is moderate and manageable, there is little research on how members of organizations can resolve identity ambiguity when it is high. High identity ambiguity occurs, for instance, when an organization's self-perception is fundamentally disrupted by an internal or external event or when an organization is newly established and no shared identity or culture has emerged yet. In these situations, managers struggle to resolve identity ambiguity by simply engaging in sense-making. A more promising strategy, we believe, is to collectively draft alternative provisional identities that serve as templates for the organization's future identity.

It is generally agreed that a shared sense of identity is created, reaffirmed, and altered primarily during organizational members' conversational encounters (Whetten & Godfrey, 1998). Recent research suggests that an organization's identity is stored in the form of narratives (e.g., Humphreys & Brown, 2002; Chreim, 2005; Brown, 2006). This view builds upon Fisher's (1984, 1985) conception of man as 'homo narrans' and upon a post-structuralist social ontology. The narrative view suggests that an organization's identity is a linguistic construct which is constituted by the identity-

related narratives authored by the organization's members (Brown, 2006). It is argued that organizations are essentially 'storytelling systems' (Boje, 1991, 1995, 2008) or 'antenarrative' networks of unfinished stories and speculations (Boje, 2001). According to Cooren (1999), a narrative-procedural view "opens up a middle course leading to a reconciliation of the functionalist and interpretative movements [to organizational communication]" (p. 294). It is through a systematic study of organizational narratives, i.e. 'narratology' (Currie, 2011), that the in situ games and practices of power and control involved in the collective production of organizational identity can be grasped. This narrative approach to organizational identity has been tightly linked to Foucauldian (1977) post-structuralist ontology (e.g., Humphrey & Brown, 2002; Brown, 2006). Clegg (1994) argues that power effects inevitably shape identity narratives. Narratives are the complex outcomes of contingent and perpetually shifting processes of subjugation and resistance (Jermier et al., 1994: 8). Identity narratives are formulated within the organization's web of power relations and are thus subject to the hegemony of discursive practices (Humphrey & Brown, 2002: 423). However, these 'centripetal forces' mobilized by the dominant groups are always counteracted by 'heteroglossia' (Bakhtin, 1986; from Greek 'hetero'=different and 'glossa'=tongue, language), i.e. the 'centrifugal powers' resulting from the capacity of each organizational member to author his or her reality and oppose attempts from dominant groups to impose identity (Rhodes, 2000).

Despite the popularity of the narrative view of organizational identity among scholars and the valuable insights it has delivered on the micro-level processes of identity building and change, it has some severe shortcomings. First, the narrative view overemphasizes the role of power and neglects other structural dimensions that are equally relevant to the organizational identity construction process. Although some authors have touched on the role of legitimation 'structures' (e.g., Humphreys & Brown, 2002), this thread has not been fully developed. Other aspects, such as the role of an organization's signification structure have not received any consideration. Second, despite the claim that narratives, agency, and practice are related (e.g., Deuten & Rip, 2000; Humphreys & Brown, 2002), their relationship remains vague. Postmodernism's 'retreat into the text' (Newton, 1996) has made it difficult to relate narrative conceptions of organizational identity to agency and organizational action. Czarniawska-Joerges's (1995) proposition that there is always at least a minor plot in every narrative has not solved this dilemma. Furthermore, Deuten and Rip (2000) have attempted to solve the narrative-agency problem by inverting this relationship. Instead

of locating agency within the narrative they suggest that "agency appears only through narrative" (p. 72). Although this twist appears promising with regard to establishing a firm relation between agency and narration – this moves the concept of narrative closer to Wittgenstein's idea of language as the foundation of agency and action – it is still unclear why this should in fact be the case. Third, adopting a post-structuralist stance on organizational reality, these accounts tend to work with what Reed (1997) has called a 'flat' social ontology. Conflating (narrative) structure(s) and agency in highly localized, micro-level doings of social actors and the rejection of any form of representationalism and realism make it impossible to retain structural aspects of reality as source of explanation of the conduct of human actors. Organizations are seen as entirely process-driven entities that are literally 'talked into being' (Boden, 1994: 215) conversation/narration analysis is considered the only legitimate means of studying organizations. The "deconstruction of the concept of organization into a miniaturized, decentered, and localized discursive […] practice" (Reed, 1997: 26) generates a single-level, unstructured social ontology which makes it impossible to account for the reciprocity between the agency and structure involved in the constitution of organizational identity.

4.2.2 Towards a Practice View of Organizational Identity

Organizations have been defined and conceptualized in many different ways (Morgan, 1986). Until the early 1970s, some sort of 'orthodox consensus' (Atkinson, 1971) akin to functionalism dominated organization theory (Clegg & Hardy, 1996: 2). Since then, however, the field of organization research has changed considerably. It seems that the dissolution of the orthodox consensus in social theory, which took place from the 1960s onwards (cf. Giddens, 1984), has, with some delay, spilled over into organization research. To explore the inner functioning of organizations, researchers have increasingly been turning to alternative socio-theoretical accounts, such as symbolic interactionism, constructivism or practice thinking as alternative ways of looking at organizational phenomena.

Weick (1969) was one of the first authors to embrace a practice view of organizations. An organization was no longer conceived as a reified object of study, but as the outcome of the interdependent social conduct of organizational members. However, this view on organizations as "nets of collective action" (Czarniawska-

Joerges, 1992: 32) or networks of social practices (e.g., Reed, 1992) has its intellectual roots in a broad array of socio-theoretical writings, such as the American philosophical pragmatism of Pierce (1934) and Dewey (1922), Schutzian phenomenology (Schütz, 1932), the social psychology of Mead (1934), Wittgensteinian (1953) ordinary language philosophy, Goffman's (1959) dramaturgical interactionism, Berger and Luckmann's (1966) social constructivism, the symbolic interactionism of Blumer (1969), and the newer synthesizing practice theories of Bourdieu (1972, 1980) and Giddens (1976, 1984). The promising prospects of practice-oriented approaches to studying organizations have recently led to a 'practice turn' in organization theory (Schatzki et al., 2001; Johnson et al., 2007). Organization scholars are increasingly attending the everyday doings of organizations' members to examine the nature of organizational phenomena, such as strategy formulation (e.g., Mintzberg, 1987; Whittington, 1996, 2002, 2003, 2004, 2006, 2007; Hendry, 2000; Jarzabkowski, 2000, 2003, 2004, 2005; Samra-Fredericks, 2003; Jarzabkowski et al., 2007; Johnson et al., 2007; Jarzabkowski & Spee, 2009; Rüegg-Stürm et al., 2010), knowing/learning (e.g., Nicolini et al., 2003), accounting (e.g., Roberts & Scapens, 1985) or organizing (e.g., Ranson et al., 1980; Whittington, 2003). In strategy research, for example, a turn to practice has not only provided managers with more accurate accounts of their everyday conduct, but research has gained much from the "deeper level of explanation for some of the major strategic issues traditionally researched in strategy" (Johnson et al., 2007: 4) and the practice view's integrative capacity. It provided a fresh, rich, and exciting research agenda (Johnson et al., 2007).

However, the practice thread of organization research is not a unified one. Proponents of the practice view of organizations do not only differ with regard to the type of social ontology they employ when theorizing or empirically investigating organizational phenomena, but also with regard to the types of practices they are interested in. Practices take a variety of forms (Jarzabkowski, 2005). Some scholars have engaged in investigating *discursive* practices, i.e. routinized organizational discourses involved activities such as sense-making (Weick, 1969, 1993, 1995b), sense-giving (Gioia & Chittipeddi, 1991), storytelling (Boje, 1995) or issue selling (Dutton et al., 2001). Other scholars have put a focus on exploring *political* practices in organizations, such as the formation of coalitions (March & Olson, 1976), the allocation and use of scarce resources (Burgelman, 1983), or the enactment of hierarchical authority (Mintzberg, 1973). A third group has studied the inner logic and effects of formal *administrative* practices in organizations, such as budgeting (Ahrens

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& Chapman, 2005, 2007). Administrative practices "operate as selection and control mechanisms for shaping activity" (Jarzabkowski, 2005: 8). Finally, a group of scholars has attempted to better understand the role of *episodic* practices in organizations (Katz & Kahn, 1966; Hendry & Seidl, 2003) as they constitute the routine forms of day-to-day interactions among organizational members. In practice research, the notion of episode has been employed in two quite different ways; either in the Luhmannian sense as a teleological "sequence of communications 'marked' by a beginning and an ending" (Hendry & Seidl, 2003: 180) or as a "characteristic sequence observed within the development of a society or organization" (p. 180). In the former sense, episodes allow organizations "to suspend and replace structures for a certain time period" (Hendry and Seidl, 2003: 183). Together, discursive, political, administrative, and episodic practices constitute an idiosyncratic network of routine conduct that lends an organization its unique characteristics and can be a source of competitive advantage.

By adopting structuration theory as our analytical framework, we intend to move beyond both the early static conception of organizational identity which has led to a conception of identity as a reified object (e.g., Albert & Whetten, 1985) and the shortcomings of the narrative view. Structuration theory allows us to focus on the recursive relation between organizational members' doings and the organizational context as they engage in practices related to the collective production and reproduction of organizational identity. Some critics of structuration theory have accused Giddens of also conflating structure into agency (e.g., Archer, 1982). Giddens's naïve-realistic account (Cruickshank, 2003: 93) may contrast with Bhaskar's (1978) scientific realism, which objectifies and reifies the structural realm, however Giddens retains and vigorously defends the important analytical distinction between agency and structure. Giddens's theory of structuration offers a way of relating the two in a fruitful manner to make sense of human social conduct. Giddens's (1984) claim that structure and agency are essentially mutually constitutive implies that neither of the two can fully compensate for the other and that the two stand in a close relation to one another. By synthesizing ideas from a diverse array of socio-theoretical traditions, such as Mead's (1934) pragmatism, Blumer's (1969) symbolic and Goffman's (1959) dramaturgical interactionism, later-Wittgenstein's (1953) practical language philosophy, and even Durkheim's (1895, 1897) early structuralism, Giddens introduces a unique practice-oriented social theory which provides a rich source of 'sensitizing devices' (Giddens, 1984: 326) for empirically investigating the agential and structural dimensions of organizational identity work. If identity is the

outcome of social interaction (Cooley, 1902), structuration theory provides a comprehensive theoretical framework for exploring and interpreting the doings of social actors as they engage in identity construction.

4.3   Employing Structuration Theory in Empirical Research

Adopting structuration theory as an interpretative framework with which to explore the social practices involved in creating, sharing, negotiating, and institutionalizing identity drafts has some direct epistemological and methodological implications. Most researchers who have turned to Giddens's theoretical writings for a fresh perspective on their subject matter and the conduct of empirical inquiries have employed structuration theory in a more tacit way. Empirical accounts of the structuration in organization and management research have discussed the epistemological and methodological consequences of taking a 'structurationist' stance only in a limited fashion, if at all. This is particularly problematic as Giddens himself has only sparsely commented on these issues (cf. Gregson, 1989; Bryant, 1992).

We briefly review the criticism raised against Giddens relating to the relationship between structuration theory and empirical research. Next, we turn to Giddens's writings for some general guidance with regard to conducting empirical research. In each of his three mainly theoretical works on structuration theory (*New Rules of Sociological Method,* 1976; *Central Problems of Social Theory*, 1979; and *The Constitution of Society*, 1984), he has devoted a section to these issues. However, his remarks are unstructured and selective. Based on his general propositions, we sketch a 'research programme' (Lakatos, 1980) which can serve as a basis for a broader adoption of structuration thinking among scholars conducting empirical research. It also provides the basis for the formulation of our research strategy and research design. However, before we turn to this matter, we shall make clear what we mean by 'research programme' as this has caused some confusion in the past (for example, Gregson [1989] denies that structuration theory constitutes a 'research programme' based solely upon the fact that Giddens does not provide a step-by-step procedure to empirical inquiry).

4.3.1 On Structuration Theory's Status as a 'Research Programme'

The term 'research programme' has two different meanings: a paradigmatic one and an empirical-practical one. It was Imre Lakatos who coined the term in his work titled *The Methodology of Scientific Research Programmes* (1980). His definition of 'research programme' is similar to Kuhn's (1962) notion of paradigm. A 'research programme' is a "developing series of theories […][with] a tenacious *hard core* […][and] a belt of auxiliary hypotheses […] that protects the hard core from refutations" (Lakatos, 1980: 179; emphasis in original text). Inspired by the contradiction between Popper's (1963) 'simple falsificationism' (a conjecture must be refuted in the event of a single falsifying instance) and Kuhn's (1969) observation that scientists often hold on to their theories in the light of even severe contradictory evidence, Lakatos proposes that the discussion of true versus false theory should be dispelled in favor of a focus on the question of whether one particular 'research programme' is superior to competing paradigms in explaining a phenomenon. Moreover, he suggests distinguishing between progressive and degenerating research programmes when deciding on the superiority of a research program (Lakatos, 1980: 179). While the former still yields new and surprising findings, the latter is scientifically stagnant. We contend that Giddens's theory of structuration also represents such a progressive paradigm, i.e. 'research programme' with the knowledgeability of agents, the duality of structure, and processes of structuration as its theoretical 'hard core.' Giddens formulates not only clear assumptions and statements about the social realm, but also directs empirical attention to the constituent processes of social life. Structuration theory is progressive since it fosters new, fresh, and sometimes surprising insights and because it can still be enhanced by making modifications to its auxiliary parts (e.g., theory of motivation, etc.).

In a second, empirical-practical sense, the term 'research programme' is synonym for a particular social theory's scientific-philosophical 'companion' which provides answers to epistemological and methodological matters. It is mostly in this sense that critics have denied structuration theory the status of a research program (e.g., Gregson, 1989). Structuration theory has been dismissed as "sociology without philosophy" (Bryant, 1992: 137). Although such criticism is to some extent justified as Giddens has only marginally elaborated on his theory's epistemological and methodological implications, it is a premature conclusion to call it 'irrelevant to empirical research' (Gregson, 1989). In each of his three theoretical works on

structuration theory, Giddens has devoted a part to explicating how structuration theory relates to epistemological and methodological questions (see NRSM, Ch. 4 and Conclusion; CPST, Ch. 7; and CS, Ch. 6). Additionally, he has provided some clarifying remarks whenever offered the opportunity or when criticized for his lack of concern with these issues (e.g., Giddens, 1989, 1991a). He has also stressed that "[s]tructuration theory will not be of much value if it does not help to illuminate problems of empirical research" (Giddens, 1984: xxix). Giddens's (1989) response to Gregson's (1989) global critique elucidates how the relationship between his theoretical account and empirical research should be understood.

In her article '*On the (Ir)relevance of Structuration Theory to Empirical Research,'* Gregson (1989) criticizes Giddens of failing to sufficiently clarify the relationship between his socio-theoretical account and empirical research. Gregson (1989) makes references to Giddens's three general guidelines for social research, namely that social research is (a) necessarily ethnographic and that it must be sensitive to (b) the complex skills of actors as well as (c) the time-space constitution of social life (Giddens, 1984: 284ff.). She contends that they are without any use for empirical researchers, since they are, first, too general and, second, hollow as Giddens does not explicate how these guidelines can be fruitfully employed in a research context. Gregson (1989) contends that "they lack the degree of specification required for empirical work" (p. 240). For example, she argues that, while few would actually disagree that social research has an 'ethnographic moment' to it, such a statement says nothing about how, when, and where researchers can investigate which actors, skills, and so forth. Gregson (1989), however, stresses that "it is only by addressing precisely these questions that the objectives of theoretically informed empirical research […] can be achieved" (p. 241). For her, Giddens's guidelines are no more than potential interests devoid of indications of content or methodology. This, Gregson concludes, renders structuration theory a 'second-order theory' whose "concerns are not with theorizing the unique […] but with conceptualizing the general constituents of human society" (p. 245). Moreover, she believes that Giddens's guidelines rather refer to issues of ontological interest than to matters of epistemology or methodology.

Giddens (1989) responded to Gregson's (1989) critique by stressing that it is necessary for social theory to be relatively autonomous vis-à-vis social research. He states that theoretical thinking "needs in substantial part to proceed in its own terms and cannot be expected to be linked at every point to empirical considerations" (p. 294). And this, he adds, is particularly the case if a theory is highly general and

abstract. Giddens calls attention to the fact that the category of 'empirical work' is very large and that such work should therefore draw selectively upon a theoretical framework instead of importing theoretical concepts *en bloc*. Furthermore, he stresses that his social theory has to be differentiated from theories that are in the form of explanatory generalizations. To explore the constitution of social life in general, his account needs to be somewhat distanced from empirical particulars (Giddens, 1989: 295). This, he stresses, does not imply that it is irrelevant to social inquiry but that his theoretical concepts must be regarded as 'sensitizing devices' (Giddens, 1989: 294; see also Giddens, 1984: 326; Baber, 1991). Thus, Gregson (1989) seems to misconceive social theory's general position vis-à-vis empirical research.

Increasing the specificity of concepts and defining rigid procedures for isolating empirical instances will not make a social theory more relevant to empirical research. This claim is not a new one but builds on Blumer's (1954) seminal article addressing the global critique against social theory's empirical relevance. Blumer posed the following questions: "Are more definite concepts really more useful for studying the empirical realm than 'sensitizing concepts'?" (p. 7); "Are concepts that provide 'prescriptions of what to see' really analytically better than concepts that merely suggest directions along which to look?" (p. 7). Regarded as sensitizing devices, Blumer (1954) argues that concepts "can be tested, improved, and refined [and] [t]heir validity can be assayed through careful study of empirical instances which they are presumed to cover" (p. 8). While the use of sensitizing concepts may be more tedious and difficult compared to their definite counterparts, their open character renders them more 'imaginative' with regard to discovering the new and unexpected. Thus, sensitizing concepts are not a deficiency of social theory, but the source of scientific progress.

We contend that structuration theory constitutes a 'research programme' in both the paradigmatic and the empirical-practical sense. The latter shall be clarified in the following paragraphs. For this purpose, we combed through Giddens's writings to identify the 'new rules of sociological method' which constitute the core of his 'research programme.'

4.3.2 Some General Rules for Structurationist Inquiry

In addition to clarifying the status of structuration theory's concepts and their role in social research, Giddens has occasionally commented on the goals, conduct, and content of empirical research (cf. Giddens, 1976: Ch. 4 and Conclusion; 1979, Ch. 7, 1984, Ch. 6; further also Giddens, 1989, 1991a). We believe that there are two main reasons why his critics do not find his elaborations on epistemological and methodological issues satisfying. First, they typically look at Giddens's research program from a positivist-empiricist stance. However, this is exactly the philosophical position that Giddens aims to transcend. For him, it is "fundamental to sustain the break with empiricism" (Giddens, 1976: 141) and that "social science should no longer be some sort of replica of natural science" (Giddens, 1984: xxxii). The second reason is that Giddens has provided his philosophical-methodological position in bits and pieces. The lack of organization in his arguments seems to confuse many of his readers. On occasion, he provided bullet-point lists of 'new rules' of social research (e.g., Giddens, 1976: 160ff.; 1984: 181ff.), however, they failed to resolve readers' disorientation. Consequently, we revisited his comments and propositions and consolidate them into a set of ten 'commandments,' i.e. rules that provide the necessary guidance for organization and management researchers planning to employ structuration theory in their empirical inquiries (note: that the number of rules (ten) is coincidental).

Rule #1: Structuration theory doesn't need to be adopted en bloc; the choice of concepts and method(s) depends on the research goal and the research question(s): Giddens has repeatedly stressed that he is not particularly content with how many researchers have adopted his theory *en bloc* hoping that this would inevitably improve their work (e.g., Giddens, 1989: 194). As noted earlier, he instead suggests that his concepts should be considered as "sensitizing devices, nothing more" (Giddens, 1984: 326; also Baber, 1991) and that they should be applied rather selectively depending on the research question(s) and the overall goal of the research project. Structuration theory should be regarded as a bundle of concepts "useful for thinking about research problems and the interpretation of research results" (Giddens, 1984: 326f.). Being 'theoretically informed,' he adds, does not mean to "operate with a welter of abstract concepts" (p. 327). Researcher should purposefully select those concepts which they believe are fruitful instruments to attain the research goal. For Giddens, the same is true for research methods. Since empirical research is concerned with very different

issues and topics, there is no single method of inquiry that fits all research projects (Giddens, 1984: 327). This does not, as some critics have argued, mean that Giddens subscribes to Feyerabend's (1975) 'methodological anarchism.' Picking the appropriate method for empirical inquiry depends on the research goal, the research questions, and the concepts employed. For example, while ethnomethodology may be an appropriate method for analyzing matters of social actors' practical consciousness (Giddens, 1984: 328), it may not be the best choice for the analysis of institutional features of social life. Overall, researchers employing structuration theory to inform empirical research have to align their choice of concepts and method(s) with the overall research goal and the research questions posed.

Rule #2: Bracketing for analysis is always methodological and never ontological: Although structuration theory provides a holistic 'world view' (Kilminster, 1991), it allows for two typical forms of methodological bracketing in empirical inquiry. According to Giddens (1984: 288f.), empirical research can either focus on the analysis of social actors' strategic conduct or give primacy to the analysis of the more enduring features of social life in institutional analysis. By focusing on one aspect, the other one is bracketed. For Cohen (1989: 284), these two forms of methodological brackets relate to two different levels of analysis; the first attempts to clarify the day-to-day (routine) doings of social actors on a micro-sociological level. The latter aims to explicate macro-sociological mechanisms involved in institutional reflexivity and structural reproduction. While such bracketing may be useful for attaining analytical focus for investigating the social realm, these brackets do not resemble ontological distinctions in the social realm itself. Bracketing is considered the "stylized insertion of boundaries in writing" (Giddens, 1984: 83). If these brackets would represent distinctions on an ontological level, this would reinstall the exact dualisms Giddens set out to transcend in the first place, for example, action versus structure, micro versus macro, and subjectivism versus objectivism. When employing brackets for analysis, researchers must always keep in mind that these brackets are always methodological and that whatever has been bracketed retains its full ontological relevance with regard to understanding and explaining what is going on.

Rule #3: Social research must attend to the active role of humans in the constitution of social phenomena and their nature as highly knowledgeable agents: One of the core propositions of structuration theory is that social agents are not merely 'structural or cultural dopes' (Giddens, 1979: 52; an allusion to Althusser's and Parsons' conception of humans as passively reacting agents) reacting to some sort of

internal or external 'social force(s),' but active agents who "know a great deal about the conditions and consequences of what they do" (Giddens, 1984: 281). From a structuration point of view, this ontological claim has direct and profound implications for the conduct of empirical research. Consequently, each study essentially has an ethnographic aspect to it (Giddens, 1984: 284). Social researchers need to hermeneutically 'grasp' what actors already know in order to understand what is going on. Knowledgeability is embedded in social actors' practical consciousness and is thus not limited to what can be expressed discursively. It is only by attending to the highly complex, ongoing processes of reflexive monitoring and the rationalization of conduct as well as by acknowledging the dual nature of context as constraining and enabling that the conduct of social actors becomes comprehensible. However, this does not imply that the researcher must necessarily 'immerse' as a full member within the group of actors whose practices he or she aims to investigate. While this may be an appropriate research strategy if the goal is to analyze actors' strategic conduct or explore aspects of the rationalization of conduct, it may not be necessary when investigating the institutional features of social life. However, independent of the research goal and the analytical brackets employed, the analysis of social phenomena must account for the knowledgeability of social agents and the active constitutive role they play in the constitution of the phenomenon under scrutiny.

Rule #4: Structure and action can only be apprehended with reference to one another: Researchers aiming to understand and explain the conduct of humans and/or the institutional features of social life can only do so by acknowledging that agency and structure are ontologically entangled (Baber, 1991: 228). This is, besides the notion of knowledgeability, the second fundamental proposition of structuration theory. Giddens expresses the mutually constitutive nature of agency/action and structure in his notion of the 'duality of structure.' Structuration theory claims that that structure is both "the medium and outcome of conduct it recursively organizes" (Giddens, 1984: 374). It is the mutually constitutive nature involved in this duality that lends structuration theory not only its capacity to synthesize the babel of social theories but also to grasp social reality in a quite unique way. Structures are no longer considered 'reified social facts' that determine the doings of human agents as argued by structural-functionalists like Durkheim (1895, 1897) or Parsons (1937), nor merely the "plastic creation of human subjects" (Giddens, 1984: 26) as proposed by phenomenologists (e.g., Schütz, 1932) or social constructivists (e.g., Berger & Luckmann, 1966). Structures are regarded as sets of rules and resources that exist only

as memory traces (Giddens, 1984: 17, 377). As such, they not only constrain, but also simultaneously enable what social actors do. Structural features become manifest and reproduced through their appropriation by knowledgeable agents going about their daily lives. This does not imply that actors are always and fully aware of the structures they appropriate or reproduce (cf. Willis, 1977). It is through the collective and persistent appropriation of particular sets of rules and resources that certain practices can become expanded across time and space as shared routines. Hence, it is fundamentally important that social researchers account for the dual nature of the structural context and how this context enters into human conduct through knowledgeable agents.

Rule #5: Analyzing the conduct of social actors requires attention to the signifying and normative aspects of rules and resources as sources of power and domination: Giddens's notion of the 'duality of structure' (see Rule #4) suggests that the moment of the production of action is also the moment of reproduction of the structural features that make these actions possible in the first place (Giddens, 1984: 26). Giddens argues that structures enable and constrain three basic aspects of (inter)action: communication, the exercise of power, and the sanctioning of conduct. Each of these three basic activities, he claims, relates to a particular structural dimension: communication to the structure of signification, sanctioning to the structure of legitimation, and power 'plays' the structure of domination. For actors, these structural dimensions are present in the form of what Giddens calls 'modalities of structuration.' These modalities are manifestations of the structural dimension activated in settings of interaction: The structure of signification is available to the social actor as interpretative scheme(s), the structure of domination is available as authoritative and allocative resources though which power can be exercised, and the legitimation structure is available as norms which allow for the sanctioning of conduct. Modalities thus link the "knowledgeable capacities of agents to structural features" (Giddens, 1984: 28) as social actors "draw upon the modalities of structuration in the reproduction of systems of interaction, by the same token reconstituting their structural properties" (ibid). Thus, to grasp what is going on in scenes of interaction, social researchers need to attend to the multidimensional nature of the structural context, the means by which structural features are available to social actors as modalities, and the reproduction of these modalities as well as structural aspects of social life.

Rule #6: Analyzing power is central to understanding social life: According to Giddens (1984), the study of power is not a "second-order consideration in the social

sciences" (p. 283). Aspects of power and domination are of primary importance to social analysis as they assemble around the relation between action and structure (ibid). However, it would be false to give the concept of power primacy over other concepts, as in the case of Foucault (1977) and others. In structuration theory, power has a double meaning. On the one hand, it denotes an individual's ability to always "act otherwise" (Giddens, 1984: 14). In this regard, the notion of power is logically tied to Giddens's notion of agency. Power is the 'transformative capacity' social actors can employ to intervene in the world. On the other hand, the concept of power is to be understood in relation to realization of intent or will as "the capacity to achieve desired and intended outcomes" (Giddens, 1984: 15). Bachrach and Baratz (1962) have referred to these two dimensions as the "two faces of power" (p. 947). However, unique to structuration theory, power is not regarded as a resource in itself (Giddens, 1984: 16). It is through social rules that social actors are granted access to authoritative and allocative resources, which allow them to exert 'control' over subjects or objects to achieve their interests. Since access to resources as modalities of domination tends to be stable over time and bound up with the system of social relations which actors inhabit, relations of autonomy and dependence also tend to be regularized. However, autonomy and dependency are never complete. Giddens argues that subordinates never act like mere 'automata' but always retain some agential power to influence the course of events and the conduct of their superiors. Giddens (1984: 16) calls this mutual dependence the 'dialectic of control.' It is essential that social analysis is sensitive towards the two 'faces' of power and the consequences of the 'dialectic of control.'

Rule #7: Social inquiry should take into consideration the spatio-temporal aspects of social life, such as the episodic nature of social life, the time-space distantiation of social practices and the 'long durée' of institutions: Giddens criticizes other social theorists for their lack of preoccupation with spatio-temporal aspects of social life. He notes that social reality is inherently episodic (Giddens, 1984: 244), that is, the occurrence of each routine (social) practice in the history is marked by a beginning and an end. Considering spatio-temporal aspects of social reality allows researchers to analytically 'cut into' the development of systems of practices over time and analyze how particular social practices emerge while others disappear. Each social practice stretches uniquely across time and space. Some practices prevail only for a short period of time and within a confined region, others stretch across long distances and time periods. In an allusion to Marx, Giddens states that social actors "make history, but not in circumstances of their own choosing" (see Giddens, 1984: xxi; also

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Giddens, 1976: 160). Some elements of the structural context preexist and outlive individuals (Giddens, 1984: 170). These enduring structural features are ultimately responsible for the production and reproduction of social institutions, i.e. 'standardized modes of behavior' (Giddens, 1979: 96) exhibiting a 'longue durée' (Giddens, 1984: 35) and considerable spatial expansion. It is through a researcher's ability to unveil and apprehend the role of such tacit, deeply ingrained aspects of social life that social research attains its emancipatory character. Analyzing spatio-temporal relations between social actors' day-to-day activities and the extended 'durée' of social institutions often provides unique insights into the constitution of social life as routinized conduct.

Rule #8: Functionalist explanations of empirical regularities are incompatible with the premises of structuration theory; regularities are to be explained with reference to bounds of knowledgeability and the intended and unintended consequences of purposive human conduct: If humans are no longer regarded as mere 'functionaries' but rather as active, knowledgeable agents, then functional-deterministic explanations of social regularities are no longer feasible. Structuration theory contends that the structural context can operate only through agents' reasons (Giddens, 1984: 293 and 310). Actors have reasons for what they do; they act in an intentional, purposeful, and knowledgeable way. This does not imply that actions always result in intended outcomes, nor that agents can fully anticipate the consequences of their actions or discursively supply reasons for their doings. The bounded nature of human knowledgeability and possible distortions in the aggregation of individual actions often lead to unintended consequences which reproduce social regularities that may be undesired. By analyzing the unacknowledged conditions and unintended consequences of purposive actions, social research can account for empirical regularities without sliding back into functionalist explanations. Observed regularities are only surface occurrences which remain mutable in the light of the sociological emancipation of the actors who produce and reproduce them.

Rule #9: The 'double hermeneutic' character of social inquiry renders social science distinct from natural science and sets it apart from naturalistic conceptions of sociology: The structural-functionalist 'consensus' in social theory, which Giddens set out to transcend, was tightly bound up with a naturalistic conception of sociology, i.e. the idea that social science exhibits the same logical framework as natural science (Giddens, 1984: xiv). Giddens contends that social science is "in some respects a quite divergent enterprise […][because] the causal conditions involved in generalizations

about human social conduct are inherently unstable" (ibid: xxxii). This instability is caused by the mutual hermeneutic interplay between the lay actor and the social scientist. As lay actors interpret and incorporate sociological findings into their conduct, the object of analysis is transformed. Consequently, structuration theory rejects the 'technological' form of critique and interventionism found in naturalistic-positivistic conceptions of the social sciences. Social intervention does not only occur when the social 'engineer' sets out to change the social situation based on his findings, but emancipation and change in behavior are inevitable consequences of social inquiries as lay actors adapt their conduct in the light of new findings. It is important that social researchers reflect on how their research project and new findings may transform the object of inquiry and that they consequently take some precautions to avoid 'contamination' of the study object during the research project.

Rule #10: Structuration theory builds upon a naïve form of realism and requires a post-empiricist epistemology and a non-positivist methodology: Giddens has described himself as a naïve realist (see Bryant and Jary, 1991: 26f.; Bryant, 1992: 141; Cruickshank, 2003: 93). Consequently, he accepts that there is a reality beyond ideas and discourse. Despite some parallels, Giddens's naïve realist position is to be distinguishes from Bhaskar's (1978) scientific realism (cf. Cruickshank, 2003: 93). For example, Giddens – unlike Bhaskar – does not defend the existence of emergent properties. More importantly, he disagrees with Bhaskar on the possibility of an empiricist-positivist philosophy of social science. Instead, Giddens advocates a radical break with empiricism (Giddens, 1976: 141). Critical of the repression of questions of interpretation in empiricist philosophies of science, he welcomes post-empiricist philosophies of science, such as those proposed by Kuhn (1962) and Lakatos (1980). These philosophies regard (social) science as an inherently interpretative endeavor and acknowledge that problems of meaning and translation have a direct impact on scientific theories and inquiries. Thus, Giddens rejects empiricism's claims that social scientists should best derive their hypotheses from theory and proceed to test them (Giddens, 1989: 295), that sense experience provides the only acceptable form of evidence, and that social science can express its observations in a theoretically neutral language (Giddens, 1976: 134). Giddens suggests replacing the inductive logic of the empiricist approach with a sophisticated form of falsificationism as proposed by Lakatos (Giddens, 1976: 140f.).

The propositions outlined above provide a broad overall framework for crafting research projects that employ structuration theory as a primary analytical lens. They

are the basis upon which we formulated our research strategy and research design to explore how team members of a corporate venture create, share, negotiate, and attempt to institutionalize identity drafts to resolve diffuse identity ambiguity. However, before we proceed, it is useful to briefly reiterate Pozzebon and Pinsonneault's (2005) learnings from reviewing empirical work based on structuration theory in the field of IT research.

4.3.3 Towards a Repertoire of Research Strategies – Learnings from IT Research

Structuration theory's complexity and abstraction as well as its very loose coupling with specific research methods has made it difficult to apply Giddens's project in empirical research. To improve the application of structuration theory in empirical work, Pozzebon and Pinsonneault (2005) drew upon experiences from IT research between 1990 and 2003 to identify structuration theory's patterns of use and discuss how researchers have addressed empirical challenges. Their in-depth study of 20 structurationist articles revealed that authors have primarily adopted interpretive epistemological and ideographic methodological approaches, such as ethnography, case studies, grounded theory, and action research (Pozzebon & Pinsonneault, 2005). Pozzebon and Pinsonneault's (2005) study also revealed that authors have made use of four of Langley's (1999) strategies for theorizing from process data to generate theories that are accurate, parsimonious, general, and useful (see Table 4-1).

According to Pozzebon and Pinsonneault's (2005) study, structurationist approaches to IT research have made use of the grounded, narrative, visual mapping, and the temporal bracketing strategies. Researchers have adopted an inductive, data-driven logic to empirically ground their propositions and predominantly narrative strategies as a means to organize and analyze their empirical material. Some studies have applied a visual mapping strategy to make a relatively detailed comparison between a number of cases' data. Finally, IT researchers have used either a fine-grained (Barley, 1990) or a broad-ranging (Barrett & Walsham, 1999) temporal bracketing strategy to explore the effect of action on institutional change. The first of these two strategies requires breaking down a rather short period of investigation into a string of small, successive events to investigate their short-term effect on contextual change. The latter is applied in multiple-year studies in which analysis is performed

sequentially and in different phases to explore events' or actions' mid to long-term effects on the institutional realm.

Table 4-1: Strategies for Theorizing from Process Data

Langley's Seven Theorizing Strategies	*Application in Structurationist IT Research*
Grounding Strategies:	
Grounded Theory (inductive)	Orlikowski (1993)
Alternative Templates (deductive)	-
Organizing Strategies:	
Narrative	Yates & Orlikowski (1992)
Visual Mapping	Orlikowski (1996)
Replicating Strategies:	
Temporal Bracketing	Barley (1990), Barrett & Walsham (1999)
Synthetic	-
Quantitative	-

Based on Pozzebon & Pinsonneault (2005: 1363f.)

Based on these findings, Pozzebon and Pinsonneault (2005) investigate how these four strategies can be fruitfully combined to overcome empirical challenges when adopting structuration theory as an analytical lens. The authors relate these strategies to the three general propositions of structuration theory (actors' knowledgeability, duality of structure, and time/space) to indicate which strategy is best suited for exploring each of these dimensions. The authors add that the strategies are usually combined and that some combinations are more appropriate with regard to investing each of the three dimensions of Giddens's structuration theory.

Table 4-2: A Repertoire of Strategies for Applying Structuration Theory

Dimension	*Strategies to be Mobilized*			
	Grounded	*Narrative*	*Visual Mapping*	*Bracketing*
Knowledeability	necessary*	recommended*	suitable	recommended
Duality of Structure	necessary	recommended*	suitable	recommended*
Time/Space	recommenced	recommended*	suitable	recommended*
* = preferred combination				

Based on Pozzebon & Pinsonneault (2005: 1366)

Overall, the article provides a good overview of the repertoire of actionable research strategies for collecting, analyzing, and interpreting empirical data from a structuration perspective. Pozzebon and Pinsonneault's (2005) article is a valuable source for researchers looking to make use of structuration theory's explanatory potential. However, the findings are somewhat limited since the study is restricted to the IT research field and to only three specific 'dimensions' of structuration theory. The authors admit that their "knowledge on the topic and on how best to apply it remains limited" (Pozzebon & Pinsonneault, 2005: 1369).

4.4   Methodology

Selecting the appropriate research strategy and research design for the conduct of empirical research not only depends on the social theory employed, but also on the subject matter, the goal of the research project, and the research question(s) put forward. We shall thus restate our research goal as follows:

This study's goal is to develop a typology of social practices as members of organizations engage in collective identity drafting to resolve diffuse identity ambiguity in the context of a newly launched corporate venture and to analyze these practices from a structuration point of view.

This research goal translates into two interrelated research questions:

RQ(1): What are the routine social practices through which organizational members create, share, negotiate, and institutionalize identity drafts?

RQ(2): How do we interpret these practices from a structuration point of view?

These two research questions represent the two stages of our empirical study. In a first step, we investigate organizational members' routine actions as they 'work on' image drafts. The aim is to provide a descriptive typology of the social practices involved in the creation, sharing, negotiation, and institutionalization of identity drafts. In a next step, we investigate each of these practices in more detail. To provide an interpretative account of these practices, we adopted structuration theory as an analytical lens. For

this purpose we draw upon the 'rules' of structurationist inquiry formulated earlier in this paper. Giddens's (1976, 1979, 1984) concepts provide the 'analytical scalpel' with which we dissect the hidden workings of these practices. The overall goal is to offer 'thick interpretations' (Geertz, 1973) of the practices identified in the first step.

4.4.1   Research Strategy

From our research goal, it is readily clear that we are first and foremost concerned with the analysis of social agents' strategic conduct rather than with analyzing the institutional aspects of organizational life. Giddens stipulates the prospects of such a focus by means of 'analytical bracketing' (see Rule #2), but he remains vague about the choice of research strategy and method (Giddens, 1989: 296). For cases where the 'analytical veil' is placed upon institutional aspects of social life, Giddens does not advocate any particular research strategy (e.g., ethnography, case study research, etc.) or method. This does not mean that he allows for a slide into the 'abysses' of methodological relativism or anarchism (Feyerabend, 1975). Instead, he contends that each research project is unique and that it is the peculiarities of the project and not his general and abstract social ontology that define which research strategy and method are most appropriate. Consequently, given our research goal and analytical focus on actors' strategic conduct, we have to pick a research strategy and an accompanying method which allows us to, in a first step, identify the routine social practices organizational members engage in as they create, share, negotiate, and try to institutionalize image drafts, and, in a second step, grasp the structuration processes that are at work 'beneath' the observable doings of organizational members whose conduct we analyze.

Based on these considerations, we adopted the qualitative-exploratory research approach of *organization ethnography*. Having its roots in American cultural anthropology (e.g., Spradley, 1979, 1980; Spradley & McCurdy, 1972; Spradley & Mann, 1975), ethnography means 'writing culture.' It is a qualitative research strategy aimed at generating a holistic understanding of the doings of social actors and how they make sense of their world (Hesse-Biber & Leavy, 2011). Ethnographies are textual accounts of the "everyday practices and customs of a culture" (p. Hesse-Biber & Leavy, 2011: 193) or of "human networks of action" (Kostera, 2007: 15).

Ethnographic research is strongly related to participant observation as a data collection method. Ethnographers 'immerse' themselves into the "social worlds of the inhabitants of their research setting" (Hesse-Biber & Leavy, 2011: 193) in order to understand what is going on in the setting and to provide 'thick descriptions' (Geertz, 1973) of the everyday activities of the actors in that setting. It is argued that, in order to gain a thorough understanding of actors' doings and meanings, the social researcher needs to spend a good amount of time within the natural setting (Hesse-Biber & Leavy, 2011: 193) of the actors whose conduct he or she aims to analyze ethnographically. This, however, does not imply that the researcher must necessarily become a full member of the scene. Contrarily, it is fundamental to good ethnographic research that the participant observers retain some distance from their subject matter so that they can critically reflect upon their discoveries.

According to Hesse-Biber and Leavy (2011), ethnographic work "relies, for the most part, on an *interpretative* […] perspective on the nature of social reality" (p. 198; emphasis in original text). However, ethnography does not per definition foreclose any positivist, hypothetico-deductive approach to social inquiry, but ethnographic research questions are often not formulated in such a precise way so that they can be submitted to direct empirical testing. Ethnographic inquiries are guided by rather general research concerns or questions which provide the social researcher with some guidance in exploring the field as a participant observer (Hesse-Biber & Leavy, 2011). However, the fact that ethnographic research favors an interpretative approach over (post-)positivist or critical approaches aligns well with Giddens's attempt to radically break with positivist-empiricist schools of social inquiry (Giddens, 1976: 141). Giddens has repeatedly stressed the significance of the 'interpretative turn' in social theory (e.g., Giddens, 1976: 51ff.); however, he has not adopted and advocated it uncritically. While he is content with interpretivism's focus on *Verstehen* and its claim that social phenomena should be considered social actors' skilled accomplishments, Giddens is critical of interpretative sociology's traditional lack of concern with more enduring features of the social realm that exist prior to and outlive individual actors. Moreover, he wants to push interpretivism a little towards realism to arrive at a form of realism which Cruickshank (2003) calls 'naïve realism.'

Ethnography is a research strategy that is closely related to other qualitative research strategies, such as ethnomethodology (Garfinkel, 1967, 2002), grounded theory (Glaser & Strauss, 1967), and qualitative case studies (Yin, 2003). With the first, ethnography shares its philosophical foundation in Schützean phenomenology

and its primary interest in how humans interpret their world and how they go about their daily lives. Proponents of ethnomethodology contend that "the meaningful, patterned, and orderly character of everyday life is something that people must work on constantly to achieve [and that] one must [..] assume that they have some methods for doing so" (Rawls, 2002: 5).

Both ethnography and ethnomethodology acknowledge that social interactions are the locus where interpretation and practical reasoning take place (Kostera, 2007: 54). Social researchers adopting a research strategy based upon *grounded theory* employ similar data collection methods as ethnographers. Both rely heavily on participant observation and unstructured interviews. In addition, grounded theory and ethnography share some philosophical roots in Blumer's (1969) symbolic interactionism (Kostera, 2007: 55). However, while both strategies suggest an inductive approach to theory building, ethnographers usually follow a less rigid set of rules than grounded theorists when it comes to analyzing the data gathered. Furthermore, unlike grounded theorists, ethnographic researchers do not often aspire to build generalizable theories, but rather intend to gain knowledge on local phenomena and to present them in the form of realistic descriptions (Kostera, 2007: 55). Finally, the ethnographic research strategy shares some commonalities with *case study research*. Both focus on inquiring into settings in which the researcher has little to no control over events in the setting and where the focus is on a contemporary phenomenon within a real-life context (Yin, 2003). Both aim to provide detail-rich descriptive, exploratory or explanatory accounts of a delimited setting concentrating on what, how and why questions.

However, the ethnographic research paradigm is not an internally unified one. Sanday (1979) argues that, while all ethnographic approaches share some important propositions, such as the centrality of participant observation and the primacy of attaining understanding, the accounts produced differ considerably in style and focus. She found that ethnographies are either holistic, semiotic, behavioral, or combinations thereof. The main difference between them is their "focus on [either] the whole, [or] the meaning, or the behavior and the degree to which the analytic goal is diagnosis or explanation" (Sanday, 1979: 537). Sanday further distinguishes between the interpretative and the explanatory-comparative mode of analysis. However, since her analysis in 1979, practice-oriented ethnographies have emerged as another quite distinct style. Ethnographies of practice cut across these styles in a unique way: they are rather comprehensive, but not as embracive as other holistic accounts; they

consider the meanings social actors attach to their actions but do not make them the object of analysis; and they focus on the conduct of social agents, but do not stop at the psychological-behavioristic level of analysis and interpretation. Practice-oriented ethnographies should thus be regarded as an ethnographic style in their own right.

Since participant observation is the primary method of data collection in ethnographic studies, the researcher's role and his or her interaction with the field is a central issue that requires closer consideration. To gather data for the study, the ethnographer must 'immerse' into the scene as an observer and/or participant. The role the researcher adopts in the field is thus a "device for securing information" (Gold, 1958: 218) which must be played carefully and sensibly. Junker (1952) and Gold (1958) provide a typology of four types of roles for ethnographic researchers: complete observer, observer-as-participant, participant-as-observer or complete participant. Each of these field roles varies regarding the researcher's involvement and disclosure of the researcher's role to the actors whose conduct is being studied (Hesse-Biber & Leavy, 2011). Each role offers a different perspective on the subject matter and each one has specific advantages and disadvantages (Gold, 1958: 222f.). For example, both the roles of a complete observer and complete participant are advantageous if the researcher needs to remain covert to collect the data required for the study. Complete participation may be insightful when becoming an authentic member of the research setting provides the researcher with unique possibilities to experience and investigate the social realm. At the same time, it bears the risk of 'going native' (Gold, 1958: 220), that is, to become too affiliated with one's participant role in the field. In such cases, researchers tend to lose their critical distance to those whose conduct they intend to study. Investigators adopting a complete participation role must control for these risks during their research project. They can avoid 'going native,' for instance, by planning 'cooling-off periods' (Gold, 1958: 220); that is, periods outside the field during which ethnographic researchers emotionally detach themselves from the participant role to dispassionately and sociologically reflect upon their field experiences. Furthermore, covert research can raise ethical concerns and issues of data quality. Which role is best suited for the conduct of the study depends on a series of other factors, such as the overall research goal and the research question(s), access to the field, or the outcome of the role-negotiation with gatekeepers (Hesse-Biber & Leavy, 2011). Moreover, the role adopted is not necessarily fixed during the entire research project. Researchers may need to change their role if such a move promises better opportunities for collecting

relevant data or if their field identity is being compromised. It is of crucial importance that social researchers remain aware that their role is an instrument for collecting field data and that they consciously play their role(s) to study those aspects of the social realm that are of interest to the study (Gold, 1958: 218).

Participant observation is not the only means by which ethnographers can collect data. Employing additional data collection methods, such as interviewing, surveys, and documentary analysis (Kostera, 2004; Schensul et al., 1999; see LeCompte & Schensul [1999: 128ff.] for a detailed overview of data collection methods for ethnographies) may be highly advantageous and in some cases necessary. Additional data collection methods can be used to supplement (Neyland, 2008) or triangulate (Denzin, 1978; LeCompte & Schensul, 1999: 130) data gathered through participation observation. Using a combination of data collection methods can be justified in multiple ways. Greene et al. (1989: 259) proposes that mixing methods, including combining qualitative and quantitative ones, is justified if it fulfills at least one of the following five purposes: triangulation (corroboration of findings); complementarity (elaboration and illustration of results); development (method enhancement); initiation (discovery of contradictions and new perspectives); and/or expansion (extension of the breadth or depth of inquiry).

Exploratory ethnographic research is based on a circular rather than a linear model of inquiry (Spradley, 1980: 26ff.). The ethnographer starts with a general problem, a topic, a concern or an openly formulated research question. He or she then enters the field and starts collecting data by making field notes, interviewing people, collecting text documents, and so forth. The analysis of these ethnographic records and other data collected guide the fieldworker in asking new questions, which demands gathering further data, and so forth. The ethnographic research cycle continues until the researcher has finished his or her ethnographic account. In cases where researchers leave the field before having completed their ethnographic text, they may still continue their analysis in order to finish their account.

The validity of ethnographic research is a complex matter and it is subject to the question of how ethnography should be epistemologically grounded. In '*What is Wrong with Ethnography?,*' Hammersley (1992) argues that ethnographic research tends to either lean towards a form of realism too close to positivism, a position which allows for the assumption that the validity of an account can be established with certainty, or towards relativism where the ethnographic account is regarded as nothing more than another possible 'reality' – one created by the ethnographer. To avoid the

limitations of both, Hammersley (1992) advocates a more subtle form of realism which is "distinct from both [positivism] and relativism in its rejection of the notion that knowledge must be defined as beliefs whose validity is known with certainty" (p. 74). Hammersley argues that ethnography should instead aim for knowledge and belief-claims "about whose validity we are *reasonably* confident" (p. 73; emphasis added). An account's validity can be enhanced by employing measures to separate 'fact from fiction' (van Maanen, 1988). We believe that it is exactly what Anthony Giddens had in mind when he advocates a form of naïve realism as a philosophical basis for his theory of structuration. It is rather incidental that Hammersley (1992) uses the term 'naïve realism' to denote the realist position close to positivism while Giddens uses the term to assume a philosophical position relatively close to interpretivism.

Building upon structuration theory's naïve realist position and adopting organizational ethnography as our research strategy, we can now develop a research design that serves as a "blueprint for action" (LeComte & Schensul, 1999: 62).

4.4.2 Research Design

The opportunity to conduct an ethnographic study on the social practices members of an organization engage in as they create, share, negotiate, and institutionalize identity drafts came to us when we were offered an external consultant role to advise a large Swiss industrial group on venturing into new markets to mitigate the existing market cyclicality risk. We were invited by the CEO of a business unit (BU) within that group, a former work colleague and friend, to join the team of a newly established corporate venture and help to grow the venture into a successful new business. It was only shortly before we were mandated that the venture had been officially established as a strategic initiative with a small amount of human and financial resources. Being closely involved as a participant-as-observer from the establishment of the venture and over a nine months period (from April to December 2008) presented a unique opportunity to conduct an in-depth study of the social practices of collective identity drafting.

The setting of the study was particularly interesting as it represented an 'extreme case' in several regards. First, the venture project was still at a very early stage. Therefore, team members devoted significant time and effort to resolving

diffuse identity ambiguity by creating, sharing, negotiating, and institutionalizing 'identity drafts.' Second, the pressure to rapidly build up the new business was aggravated as the broader economic conditions worsened significantly. In spring 2008, the outlook for the business unit and the overall group worsened dramatically as many sectors were hit hard by the consequences of the global financial crisis. In only one year, sales of the group's division, of which the BU and the venture were a part, had dropped by over 40% and the profit-making unit slid deep into the red. The management of the BU and the newly established venture project team grew increasingly concerned about the overall prospects of the business and the national media fueled rumors that the entire division might be sold off to stop the cash drainage and ultimately save the group from going bankrupt. These fears were not wholly unjustified given that the division was established only recently after the group had acquired another Swiss industrial firm and transformed it into one of several divisions of the group. Moreover, the group's owner structure changed twice in recent years and the mid to long-term investment strategy of the new foreign owners remained unclear.

Over the course of the study, we assumed the role of a complete participant. Only the CEO of the BU, who offered us the opportunity to conduct this study, was informed about our study. All the other actors were unaware of our role as a researcher. For them, our role was exclusively that of the external consultant supporting the team during the build-up and growth of the venture. We were officially appointed as the Head of Business Development in the venture team. This role allowed us to unobtrusively participate in all relevant meetings and designated us to discuss any topic regarding the venture's strategy, vision, and future identity with team members. Moreover, due to our close and public friendship with the CEO of the BU, we became a sort of 'catalyst' between the venture team and the CEO as both sides turned to us to discuss important matters and ideas. Our role placed us 'at the center' of the social practices involved in the creation, sharing, negotiation, and institutionalization of identity drafts. Owing to our elevated social position and friendship with the BU's CEO, we were provided with the unique opportunity to gather the data needed to conduct this study.

Doing ethnographic fieldwork is rather an art than a precise science or method (Wolcott, 1995). Wolcott (1995) argues that fieldwork is about 'courtesy and common sense,' about 'being there,' 'getting nosy,' and 'looking over others' shoulders.' Fieldwork requires mind-work and personal work. The ethnographic researcher must not only create records of data, but continuously play and defend his or her role as an

objective investigator, hermeneutically grasp what is going on, and express his or her findings in an ethnographic account. As an actor immersed in the field, the ethnographer needs to establish and manage field relations with his or her 'informants' (Neyland, 2008). In our particular case, the overall setting was rather small and clear, with a few relations to be managed. The venture's core team comprised only three members, including ourselves. Additionally, three senior managers and three other employees of the BU were engaged in the project. The relatively small number of people and relations to be managed allowed us to first-handedly experience most of the goings-on within the team, inter alia, the routine discursive practices team members performed to translate diffuse identity ambiguity into graspable and discursively expressible identity drafts. This made it possible to see the whole 'picture' while not losing sight of the subtleties involved in the constitution of these routine doings.

Data gathering was primarily based on observation and taking field notes. We took records of what team members said as they tried to make sense of the diffuse identity ambiguity by drafting possible future identities. We complemented these records by taking notes of team members' non-verbal communication and of the interaction settings in which members shared and negotiated such image drafts. Such meticulous note-taking provided the basis for identifying, analyzing, and interpreting the social practices members engage in as they participate in identity construction. However, taking field notes was not guided by a strict set of rules. We 'jotted down' whatever we thought was relevant and interesting with regard to our research questions. Many of the records made were, in van Maanen's (1988) words, 'boringly realistic' and brief.

In addition, we tape-recorded several meetings with one key client and one prospective business partner. These meetings represented 'episodes' in which the venture's future and identity as well as the overall firm were frequent topics. In addition to transcribing the recordings for further analysis, we took real-time notes on non-verbal and contextual elements of these social encounters. This allowed us to sense subtleties of the interactions which might otherwise have gone unnoticed. Internal documents provided another valuable source of contextual information to complement our findings from participant observations. For example, we were able to obtain earlier strategy documents comprising elements of identity drafts, which helped us to put identity drafts in a historical context. With regard to the economic uncertainty concerning the venture's wider context, the frequent letter of the group's CEO

provided a rich source of contextual information. Since the letter was regularly emailed to all the employees of the group and read by many, it supplied members of the venture team with valuable insights into the happenings and developments within the entire group. These letters addressed key issues which subsequently became regularly debated topics during daily 'coffee break meetings,' chats in the hallway, and other casual discursive encounters.

While collecting data in the field, we simultaneously started to analyze our records for clues and patterns regarding the social practices involved in the collective fabrication of identity drafts. The process of data analysis was split into two subsequent steps. In a first phase, we searched, filtered, and analyzed field notes, coded transcripts of tape-recordings and searched through obtained documents for hints that would allow us to develop a typology of discursive practices involved in the creation, sharing, negotiation, and institutionalization of identity drafts. Initial ideas and findings were triangulated across various data types to find additional supporting instances and clues. In an iterative process of data analysis and with an increasingly focused collection of additional data, we developed a general typology of the routine practices of team members engaging in identity drafting.

In a second step, we 'radiographed' each of these practices from a structuration point of view. Regarding these routine doings as skillful accomplishments of knowledgeable actors, we looked for tacitly applied rules that constitute these practices. We analyzed how actors drew upon interpretative schemes and norms as well as their authority over objects (e.g., financial resources) and other actors. The goal of this second phase of analysis was to gain a thorough understanding of the structuration processes at work when members of the team (inter)acted to create, share, negotiate, and institutionalize identity drafts.

Data analysis and interpretation did not end after the nine months we spent observing venture team members in the field but continued for quite some time thereafter. This allowed us to review our findings from a critical distance as we switched roles from being participants to being 'full-time researchers.' Over several months, we repeatedly revisited our data to validate our initial ideas and preliminary findings to make sure we did not overlook something important. However, we did not only look for confirmatory evidence but also for 'hints' that contradict our findings to jeopardize our understanding of what is going on.

Data collection and analysis also overlapped with the writing of the ethnographic account. From the outset of the study, our intention was to author a

'realist tale' (van Maanen, 1988: 45) of the subject matter. Therefore, we had to make sure our study conforms to four conventions: *experiental author(ity)*, i.e. taking the 'I' out of the ethnographic report and focusing on the "sayings, doings, and supposed thinkings of the people studied" (van Maanen, 1988: 47); *typical forms*, i.e. focusing on the mundane, "regular and often-observed activities of the group under study" (van Maanen, 1988: 48); *the native's point of view*, i.e. to assessing and interpreting the goings-on from the standpoint of the observed; and *interpretive omnipotence*, i.e. that our interpretations offered are undisputed and made credible by supportive evidence or by reference to theory (van Maanen, 1988: 51f.).

Conducting ethnographic research requires controlling for risks that may negatively impact the collection, analysis or interpretation of data (Johnson et al., 2007: 67). While our close participation in the scene gave us access to situations that may not have been available to observatory research, we had to take measures to control for three risks inherent to participatory strategies: contamination, going native, and political alignment (see Johnson et al., 2007: 67). The first risk denotes that participating field researchers' actions may influence the subject matter under investigation. We tried to minimize this risk by reflecting critically on our involvement in the setting and how we may have influenced the doings of other actors in the scene. The risk of 'going native,' i.e. the danger of becoming too emotionally attached to the role as participant, was low and controllable in our case, since our active engagement in the field was limited to one to two days per week during our nine month field study. During the rest of the week, we reassumed our role as researcher to analyze the newly gathered data. These 'cooling-off periods' (Gold, 1958: 220) were elemental with regard to retaining a 'critical eye' and to separate 'facts from fictions' (van Maanen, 1982) and to remain objective. Finally, controlling the risk of political alignment provided the biggest challenge. Political alignment occurs if the researcher is instrumentalized by other actors as a political 'tool' (Johnson et al., 2007: 67). From the outset of our research project, one member of the team and one senior manager of the BU tried to utilize us for their personal interests in the venture. It demanded considerable effort to counteract these attempts and maintain a politically neutral position. Being engaged as an external consultant rather than an employee proved highly valuable as we could refer to our official role given by the BU's CEO whenever we needed to justify a deviating position on a particular issue or topic. The risk of political alignment with the CEO was low as our long lasting friendship was built upon openness and the capacity to accept criticism.

4.4.3 Research Setting and Context

A venture project within a large Swiss industrial group provided the setting for our inquiry into the structuration of the social practices involved in the creation, sharing, negotiation, and institutionalization of identity drafts. A brief overview of the research setting will familiarize the reader with the scene and the broader context of the venture at the time when we conducted our study. For our ethnographic account, we anonymized the name of the group, the venture, and the actors to protect their identity. Towards the end of 2007, the management team of one of the companies within a large Swiss industrial group decided to start a corporate venture in order to enter new markets by leveraging the company's unique capabilities to process high-performance ceramic materials. The company's strong dependency on the highly volatile textile machinery market and the uncertainty about the BU's future role within the group provided the primary reason for this decision. By building a second foothold in markets not related to the textile industry, the management team of the company hoped to compensate for the potential loss of local jobs in case of a downturn in its key market and/or in case divisional or group management decided to move jobs to countries with lower labor costs than Switzerland to increase profitability. The secondary rationale was to make the company less dependent on one single market and to put it on a broader basis to level out the high cyclicality of its core business. Moreover, if the company's sales and profitability were more stable, it would be much more likely to stand on its own feet in case the group's senior management decided to sell-off its textile business as a whole or in part. This was an important motivation for starting this venture, as the company's management considered a management buyout in the case group management decided to put its textile division or BU up for sale.

A brief review of the company's history provides some background information on this rationale, illustrates the overall situation during our study, and reveals why the company found itself in a state of high identity ambiguity. Founded in the mid-nineteenth century as a small family business, the company played a decisive role in the ascent and prosperity in Switzerland until the First World War. Within a little more than half a decade, the company became a key player in this market and one of the largest employers in the country. After the First World War, the company employed over a thousand staff members. During that time, the company had built an identity and image as a leading textile machinery firm. Then, from the mid-1920s onwards, when growth in the Swiss textile industry gradually slowed down, the firm's

management decided to build a foothold in additional, more promising industries to find and exploit new opportunities for growth. Over the following fifty years up till the early 1970s, the company grew into a large industrial group with over five thousand staff members. Known for its high quality products, it had become an international player in the textile machinery market. Moreover, the company the key driver of prosperity of an entire region. However, the decline of the Swiss textile industry from the mid-twentieth century onward forced the company to transition from a textile group into a chemical and plastics specialist. As a consequence, the group systematically spun off or closed down parts of its traditional textile business. In 1999, only one highly specialized textile technology subsidiary was left which was continued until 2005 when it was acquired by one of the few remaining large textile machinery groups in Switzerland. Within the new group, the company became a part of its textile components division – a 'patchwork division' which had been built up of a series of mid-sized firms that the company acquired between 2003 and 2005. After it was acquired, the company was allowed to keep its original name and to operate mostly on a stand-alone basis with little interference from group management. Then, in 2007, after foreign activist shareholders put pressure on the textile machinery group, the entire group was sold to another large Swiss industrial conglomerate in a public takeover. The acquired group was merged with the buyer's existing textile machinery business to form a division. The newly established division constituted a big part of the overall conglomerate with the company being only a very small part of the textile components business unit. Under the new ownership the company had to change its name to conform to a prescribed corporate identity. When the market for textile machinery collapsed in the aftermath of the recent global financial crisis, sales in the group's textile division dropped by roughly fifty percent across all subsidiaries. Suddenly, after years of sales growth and decent profitability, the textile machinery and components business incurred high losses. Despite the group management's long-term commitment to the division, rumors spread that the division may be divested as a whole or in part to recuperate cash to avoid the entire group being declared insolvent. These rumors were not entirely unjustified given that the textile group was acquired in its heydays and financed almost entirely with bank loans, which led to a perilous overall debt level. It was obvious that the financing banks were increasing the pressure on the management and owners of the group to find a solution to considerably lower the group's debt burden.

When we started our study in spring 2008, we found the company in a state of high identity ambiguity. After being forced into the periphery within the traditional group, being acquired twice within a short period of time, having to give up its traditional name and logo, and being hit hard by one of the worst market downturns in the history of the textile machinery market, members of the company had almost entirely lost their sense of a shared identity. While some wallowed in their memories, others demanded that the company adopt a role as part of the large industrial conglomerate. It was not surprising that the newly established venture within the company became the hope for a new and better future. However, since the venture did not yet have an agreed upon strategy or shared identity but instead followed market opportunities opportunistically, members of the team developed an array of identity drafts for the venture. Venture team members asked questions such as: 'Who are we as a team?' and 'Who do we want to be as an organization?'

We decided to focus exclusively on the corporate venture's setting in order to identify the various social practices performed by organizational members as they engaged in collective identity drafting to resolve high identity ambiguity and to subsequently analyze these practices from a structuration perspective. This decision was motivated by several factors. First, since we were offered a consulting assignment to help develop the newly established venture into a more substantial business, we received unique access to the goings-on in the venture. Access to the entire company was much more limited and was not covered by our agreement. Second, by focusing solely on the venture, our research setting remained manageable and clear. To conduct our study, we did not have to trace and analyze the interactions among hundreds of people but could focus entirely on studying the conduct of a small group within the organization that had been assigned to the venture project. This allowed us to retain a good overview of the goings-on as members of the team engaged in identity drafting. Moreover, extending our study to the entire company would have been problematic given our limited resources – having only one researcher on site. Finally, while identity ambiguity was also high throughout the entire company, the venture setting provided an extreme case of identity ambiguity. Such extreme settings are particularly useful for in-depth, single-case studies (Yin, 2003) or ethnographies as they provide unique insights into organizational phenomena.

The following table depicts the relevant actors who assumed roles in the venture. We clustered the team members into three groups depending on their primary role or function within the company or venture. The column labeled 'Time Alloc.'

indicates how much time each member allocated to the venture project measured in relation to the standard work hours of a full time employee (FTE):

Table 4-3: Venture Team Members and their Roles

	Role Company	*Role/Function Venture*	*Time Alloc.*
Company	CEO	Overall governance	c. 10%
Management	CFO	Financial governance	c. 10%
	Head of Production	Production capacity planning	c. 30%
Venture	-	Head Business Development	c. 20%
Core	-	Head of Engineering and Sales	100%
Team	Purchasing	Administration & Purchasing	c. 50%
Other	Co-Head Shop Floor	Production	c. 30%
relevant	Head of Quality Management	Quality Management	c. 20%
actors	Secretary of the CEO	Corporate Identity	c. 10%

The venture team comprised members of the company management, three core team members including us as participant observer, and three members of the team who primarily worked for the company but were regarded as part of the extended venture team. During the nine-month ethnographic study, we focused primarily on the analysis of interactions among these actors as they created, shared, negotiated, and institutionalized identity drafts for the newly established venture.

4.5 Identity Drafting in a Corporate Venture – A Structuration View

Analyzing our collected data and reflecting on our first-hand experiences made over the nine months on site revealed that venture team members performed a series of specific social practices to transform high identity ambiguity into alternative, provisional identity drafts and then into a shared identity:

Figure 4-1: From High Identity Ambiguity to Identity Drafts to Shared Identity
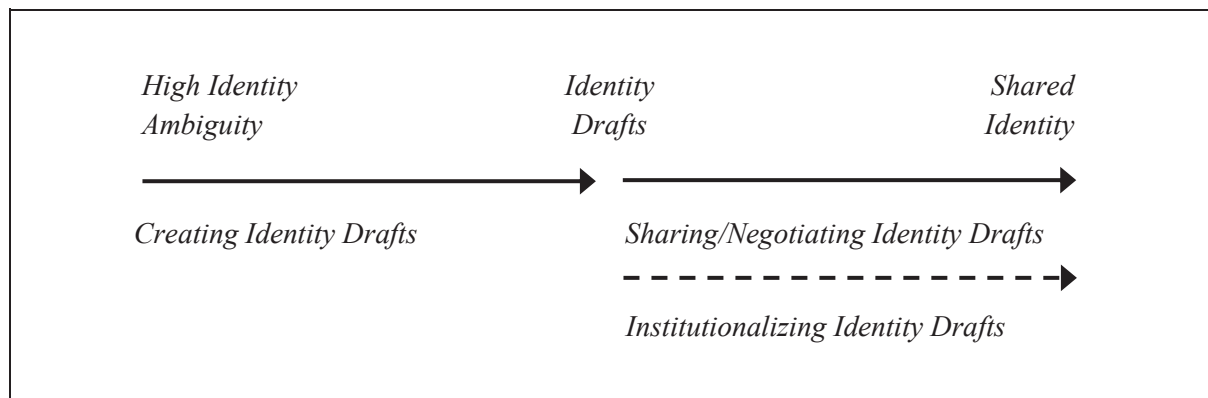
High Identity Ambiguity	Identity Drafts	Shared Identity
Creating Identity Drafts	*Sharing/Negotiating Identity Drafts*	
	Institutionalizing Identity Drafts	

The social practices involved in creating, sharing, negotiating, and institutionalizing identity drafts were the products of knowledgeable actors who were enabled and constrained by shared (tacit) rules and resources forming the structural context of (inter)action. The subsequent table provides a general typology of the social practices we discovered:

Table 4-4: A Typology of Practices Involved in Identity Drafting

Episode	Practices	Short Description / Comments
Creating Identity Drafts	Importing Clues	Interactions with prospective clients, business partners, etc. provided opportunities to create or modify existing identity drafts
	Projecting Strengths	Perceived strengths vis-à-vis competitors served as inspiration for identity drafts and provided the broader frame of all drafts created
Sharing/ Negotiating Identity Drafts	Sharing Identity Drafts	Team members engaged in conversations on identity to promote, test, refine, and/or refute identity drafts
	Playing Power Games	The ability to mobilize resources allowed team members to enforce favorable and ward off unfavorable image drafts
	Normative Anchoring	Team members anchored identity drafts in shared norms to legitimate them

Table 4-4: A Typology of Practices Involved in Identity Drafting (continued)

Institutionalizing Identity Drafts	Attracting Resources	Members of the team attempted to attract financial and other resources (e.g., people, production capacity, etc.) to cement their promoted identity drafts
	Creating and Mobilizing Artifacts	Favorable identity drafts became increasingly fixed through the creation of physical artifacts (e.g., logo, client contracts, etc.)

Identity drafts were in constant flux as team members continuously created new and modified existing ones by importing and mediating provisional images and ideas provided by relevant external stakeholders (clients, suppliers, etc.) and by projecting strengths into alternative self-perceptions. Team members shared identity drafts with others in day-to-day social encounters to promote, test, refine or refute alternatives. Furthermore, they mobilized resources as 'modalities' of domination to enforce or ward off particular identity drafts and linked identity drafts to generally agreed-upon norms to anchor and legitimize them. Finally, members of the team tried to attract financial, human, and other resources or they created artifacts to institutionalize their favorite identity drafts.

Moreover, we found that the occurrence of these practices varied over time. While members of the team were initially engaged in creating new identity drafts, their focus shifted more and more towards sharing, negotiating, and institutionalizing existing identity drafts. The presented typology can thus also be interpreted as an episodic scheme. This does not mean that the process of identity construction was a deliberate one in which members initially created a set of alternative self-perceptions and then submitted each of them to sharing and negotiation. Instead, new identity drafts were created as long as the process of identity construction continued. Team members even created new identity drafts at a time when it was already clear which identity draft would prevail. When we refer to the typology as an episodic scheme, we mean that each identity draft has to go through the states outlined if it is to become the venture's newly shared identity.

In the following sections, we explore each of the seven types of practices observed (see Table 4-4) in more detail. To make sense of venture team members' conduct, we employ various dimensions of structuration theory to provide an

interpretation of the observations made. To make our account more real, we provide several direct citations of utterances made by team members.

4.5.1 Importing Clues

Since the venture had gradually grown from an opportunistic appreciation of orders from clients outside the textile machinery industry into an official initiative, venture team members had already been grappling with identity-related questions for a while before we entered the setting. By crafting preliminary answers to identity questions, the team had established an initial yet still diffuse sense of identity for the venture project. Once the idea to venture into new markets in order to balance out fluctuations in the textile machinery market had matured and received the official support from the organization's top management, efforts to define the venture's future identity by drafting alternative, provisional identities increased significantly. We discovered that team members performed two different practices to create new identity drafts and give form to their initial thoughts on identity. On the one hand, team members adopted and mediated image drafts and clues from clients, partners, and other external stakeholders. On the other hand, the venture team members created new identity drafts by taking into consideration the organization's and venture's strengths and key capabilities.

We observed that meetings and other occasions of interaction with clients, suppliers, and other external stakeholders provided a valuable and rich source of ideas for drafting provisional identities. In such encounters, members of the venture team were frequently supplied with clues about how the different stakeholders saw the venture. These stakeholders thus provided the team with contingent answers to questions such as 'What do we want to do?,' 'Who do we want to be?,' and 'What should we concentrate our resources on?' Clients and other relevant stakeholders provided a broad and variegated range of image clues, ranging from explicit suggestions to subtly submitted advice on future business opportunities. However, image clues were not adopted uncritically but were always mediated by asking: 'What does this mean for us?'; 'Is what XY suggests really an option given our limited resources?'; or 'How does this image clue fit into other provisional self-perceptions?'. The two situations described below illustrative in more detail how clients, suppliers, and other stakeholders supplied the team with image clues and how the team mediated them to build new or modify existing identity drafts.

In the second half of 2007, shortly before the venture was established more formally, a dental implant start-up (short: DentalCo) approached the organization to produce the first prototypes of a newly developed type of dental implant made of high performance ceramic materials. The CEO of DentalCo was convinced that the company's unique capability to produce high precision ceramic parts for the textile machinery components would also enable his start-up to develop new, innovative products to disrupt the high-end dental implants market. Owing to its ground-breaking dental implant solutions, DentalCo had attracted a notable amount of venture funding from external investors. However, the company had to find a production partner capable of fulfilling their tough product requirements and, after having talked to other high-performance material machining specialists, the CEO of DentalCo realized that the organization with its yet-to-be-formed venture would be the only player in the market capable of producing geometrically highly complex implants at that time. He knew that if he could win the venture team for a close and exclusive partnership, his start-up could erect significant barriers to market entry as followers would have troubles finding a production partner capable of producing similar dental implants.

DentalCo's decision to enter the dental implant market was a bold strategic move since the incumbent players had 'deep pockets' and established distribution networks to fend off new market entrants. Nevertheless, the CEO of the dental start-up held on to his vision of the firm becoming a significant player in the market over the following five years. However, to realize this vision, DentalCo needed to convince the prospective venture team to engage in a close partnership. Consequently, whenever the teams of both sides met, for example to discuss the prototyping phase's results or details of the partnership, the CEO of DentalCo repeated his mid to long-term vision of the start-up, promising and stressing that the team and organization had a 'once in a lifetime' opportunity to develop the venture into a substantial business within a relatively short period of time and to secure local jobs in spite of the volatility of the textile machinery market. The CEO of DentalCo supplied the venture team with a vision of the venture's promising future depicting it as the leading supplier of ceramic-based components for the dental and medical industry – a rapidly growing sector with much better prospects than the stagnating textile machinery market.

The venture team, however, did not adopt DentalCo's vision of the venture's future in an unmediated way. Instead, the team weighed the prospective benefits against the potential short, mid, and long-term risks a close and exclusive partnership could bear and discussed how resource constraints within the organization may make it

difficult to live up to the DentalCo CEO's growth expectations. The fact that he had made mutual exclusivity a necessary condition for a partnership contrasted sharply with the intention of the organization's senior management and essentially the venture team to minimize market, client or any other sort of dependency risks and remain flexible. Furthermore, a partnership would have required high client-specific investments into production capacities which could not be directly used otherwise if DentalCo did not succeed in breaking into the high-end dental implant market. Furthermore, the venture team's sentiment towards a close partnership turned from mixed to somewhat negative when the DentalCo's CEO expressed his plan to sell his start-up firm to a large incumbent player in the mid-term and that this would require the corporate venture also sells its production know-how and infrastructure. Concerns about DentalCo's agenda and goals combined with other factors, such as dependency risks and tight resource limitations, led the venture team to mediate the vision and image clues supplied by DentalCo's CEO. They subsequently drafted an identity which combined elements of DentalCo's vision for the corporate venture as the dental and medical industy's leading partner with identity-related aspects from other identity drafts, i.e. preliminary answers to the question: 'What should the venture stand for in the short, mid and long term?'. For example, the team intensely discussed how it could avoid committing to an exclusive partnership in order to retain more flexibility. Thus, the image draft constructed by the venture team members deviated from the image supplied by DentalCo's CEO. It was a highly unique, fluid social construction comprising the hopes, fears, and ideas held by the venture team combined with the image clues supplied by DentalCo.

Another example illustrates how the venture team imported clues from one of its key materials suppliers to create a new identity draft. During one of the regular update meetings with the supplier's sales representative, the venture team was informed about two newly developed materials: a translucent and an electrically conductive high performance ceramic material. Both materials had very unique features that would allow the venture to create new opportunities for clients from various industries. The venture team's Head of Engineering and Sales recognized that translucent ceramic materials could open up new avenues for design innovations for luxury watch manufacturers. Having been in regular contact with several Swiss luxury watch manufacturers and having conducted prototyping projects for ceramic-based clockwork components, the Head of Engineering and Sales was familiar with the pressure these firms faced in coming up with new, unique products for their

demanding clientele. He was convinced that these new materials would open up entirely new design opportunities. In the meeting, the discussion quickly extended into whether or not the venture should focus on becoming the first, highly specialized player to produce ceramics-based components for the luxury watch industry. It was argued that Switzerland with its large number of luxury watch manufacturers would provide ample opportunities to eventually grow the venture into a substantial business. While it was clear that such a strategy would not yield the same potential for growth and profitability as the dental implants market, the venture would also not make itself dependent on one single client as was the case when the venture team agreed to an exclusive partnership with DentalCo.

In this second scene, the venture team did not adopt and mediate a concrete image or vision supplied by an external partner as in the first example. Innovations from the material supplier provided merely an 'igniting spark' which then led to the creation of a new identity draft depicting the venture as a partner for luxury watch manufacturers. Thus, the way in which clues from stakeholders are used to create alternative, provisional self-perceptions was highly situation-specific and did not follow a particular template.

All in all, the venture team members acted as skilled and knowledgeable performers of their boundary spanning role (Aldrich & Herker, 1977; Tushman & Scanlan, 1981), drawing upon a broad array of rules and resources, i.e. structural features. For instance, they appropriated some general rules of interaction, signifying representatives of the venture team as insiders and clients, suppliers, and other partners as outsiders. As a result, interactions with outsiders differed from interactions within the venture team in many regards. Social interactions with external stakeholders were rather distanced and non-confronting. Team members did not openly raise objections against supplied image clues, since they tacitly agreed on the insider-outsider distinction, which allowed them to regard supplied clues as suggestions which they could either embrace or not. We also discovered that venture team members' and outsiders' interaction partners mobilized their positional power to enforce their interests. For example, we found that DentalCo's CEO repeatedly tried to influence the course of image drafting within the venture team by mobilizing his power to allocate orders substantial to the venture. Not only orders placed but already the communication of potential upcoming orders provided the CEO of DentalCo with an effective means to promote his interests that the venture team adopted his vision. Finally, members of the venture team seemed to tacitly follow the omnipresent yet

rarely discursively expressed 'client is king' rule of economic, demand-driven organizations. Whishes expressed by key clients became the primary device for legitimating particular views and support for particular identity drafts within the team. Client demand and satisfaction seemed to be a criterion for evaluating existing identity drafts. By tacitly appropriating the 'client is king' rule, the team unwittingly reaffirmed the market's role as the primary measure for evaluating the conduct of economic organizations and managers. The (unintended) consequences of team members' purposive conduct thus stretched far beyond the context of the venture or particular social interactions.

4.5.2 Projecting Strengths

In the corporate venture, the practice of creating and modifying identity drafts in social interactions with clients, suppliers, and other stakeholders was complemented by the practice of creating identity drafts by projecting the organization's unique capabilities. While it may have been simple to follow a path suggested or hinted at by clients and other relevant stakeholders, team members were well aware of the organization's and venture's strengths and capabilities, which provided the seeds for building a substantial business. Upon the CEO of the BU's instruction, the team actively reviewed how it could leverage its core competencies to build a new business that would allow for securing local jobs both in the short and long-term. During a team meeting, the venture team's Head of Engineering and Sales stated:

> *"We are better than any other player in the market when it comes to precision and quality. This is our distinctive capability. So why focus on only one market? We should aim to become one of the leading boutiques of ceramic-based high precision parts for clients from various industries. We can be a partner of the watch, medical, automotive and other industries. Our market is the entire German-speaking part of Europe."*

His remark reflected the fact that the venture was in fact one of the very few players with the engineering capabilities and production infrastructure to manufacture parts of highest precision. Not only were team members aware of this, but also many of the

company's clients. Addressing the team, a key client from the watch industry once stated during a technical specification meeting:

> *"With your capabilities to produce high precision ceramic-based casings for luxury watches, we can create new watch designs. Your quality is unmatched by other producers in the market."*

Similarly, addressing the venture team, DentalCo's CEO affirmed:

> *"Only with your engineering and production know-how can we achieve what we want to achieve. We had other manufacturers produce prototypes but we were disappointed by the results. Without you on board as our exclusive partner, we would lose approximately six to twelve months until someone else has figured out how to do it."*

In addition achieving high precision results, the modern production infrastructure with state-of-the-art CNC-controlled grinding machines allowed for experimentation with new procedures and complex geometries. Being fully aware of this, team members repeatedly stressed that rapid prototyping constituted another distinctive strength of the firm which could be leveraged. This competence had been built over the years as many of the orders were small-batch or prototyping jobs which demanded the team's unique engineering capabilities and a highly flexible production infrastructure with low set-up times and a high degree of flexibility.

However, while the corporate venture could capitalize on its advantages in terms of precision and flexibility, it was at a clear disadvantage when it came to producing high-volume, low-margin parts. First, the production capacity was limited and the installed machines were not optimized for high volume orders. Moreover, being located in Switzerland with its high labor costs compared to even neighboring countries such as Germany or Italy, demanded a concentration on low-volume, high-margin orders in order to generate contribution margins that allowed the venture to operate profitably. The disadvantage of not being able to take on high-volume orders could only be partially offset by a higher degree of automation in the production process. During a site visit, the CEO of a German firm which acted as a supplier, partner, and competitor responded to the question of whether there is an overlap in capabilities and production capacities. He stated:

> *"Our business is the volume business. Your business is completely different. We are the 'dirty squad' and you are the nice guys to go to when someone is looking for very small parts or a batch size of five. Sometimes we are approached by clients asking us to produce two or three units or prototypes. What if we pass these people on to you in the future and you send us over the high-volume orders?"*

Similarly, during a strategy meeting, the CEO of the BU and the Head of Engineering and Sales (HES) exchanged their views on this topic:

> *HES: "Aren't there a series of ceramic parts in every car?"*
> *CEO: "Our future is this high-margin and low-volume business. We simply cannot compete when it comes to volume and low margins. Small but nice is our game. We shouldn't waste any time thinking about how we can become a supplier for the automotive industry."*
> *HES: "I agree. But maybe we could only do a few production steps."*
> *CEO: "Forget it! I want to see how you produce millions of the same parts on our machines. For this, we would have to throw out all the machines we have and build a new production from scratch."*

As a consequence of the ongoing discussions on the venture's strengths and capabilities as well as an assessment of the client base and previous orders to determine the possibilities of specialization, the team came up with an array of different new identity drafts, such as 'we are the specialist for high precision, ceramic-based roller bearings' (built on the venture's unique strength in producing cylindrical parts) or 'we are the specialist for small parts made from ceramic materials' (built on the comparative advantage of being able to produce smallest parts).

When we investigated our data and reflected upon our first-hand experiences, we discovered that the practice of identity drafting by projecting strengths was enabled and constrained by the organization's traditional recipes for success, the interpretative schemes held by team members, and the broadly accepted 'business rule' that building upon strengths and core capabilities is a promising strategy to be successful (Prahalad & Hamel, 1990). We found that it was difficult for team members to perceive radically new opportunities by breaking with established views, by questioning recipes which were successful in the past, and by thinking 'outside the box' to envision that the

venture could help change the organization into something radically different. This was not particularly surprising given that most of the team members had been with the organization for several years when the venture was launched. Over the years, they had internalized the rules and recipes which characterized the thinking and conduct of the overall organization. Consequently, the practice of creating identity drafts based on projecting strengths not only reproduced the existing interpretative schemes, norms, and resources as 'modalities' of structuration, but also the relationships among actors. Members of the venture team had to conform to the corporate rules and norms if they wanted to attract resources and receive support from the organization's senior management. By tacitly following these rules, the actors unknowingly reproduced the structural context within which the venture was embedded and of which they aimed to break free.

4.5.3 Sharing Identity Drafts

A shared identity is an inherently social accomplishment (Scott & Lane, 2000) in which individual perspectives are amalgamated and interactively refined until some basic agreement over the core aspects of the shared identity emerges (Gioia et al., 2000).

Members of the venture team talked about matters of identity and expressed their personally held identity drafts in everyday social encounters. They routinely shared, challenged, refined, and opposed identity drafts to create a shared sense of identity within the newly established venture. However, the emerging sense of identity among team members was neither the random outcome of situative interactions among actors nor predetermined by the current structural context or established power relations within the organization or venture. Each team member had a stake in this process since every member's sense of self-identity was closely coupled with the emerging sense of the venture's identity. In regular day-to-day social interactions, team members mobilized shared interpretative schemes, norms, and sources of power to share and support favorable identity drafts while challenging or repelling those they perceived as less promising for the venture.

Sharing identity drafts with other team members demanded that the actors be in a practical sense knowledgeable about the communication and interaction rules relevant for establishing and maintaining discursive encounters in which identity drafts

were discussed and negotiated. These rules are primarily practical in nature and they define the aspects of the 'when,' 'where,' 'who,' and 'what' of social interactions in which identity drafts could be shared with others. Tacitly shared 'when'-rules signify when it is appropriate to discuss matters related to the identity of the venture or the organization in a social situation. For example, in our sample, the decision to initially keep the venture secret to the group or division management allowed team members to share their ideas, thoughts, concerns, and so forth when they were among themselves but constrained such behavior in the presence of division managers. Shared 'when'-rules also determined when it was appropriate to discuss identity drafts among team members. For instance, while sharing identity drafts was common during weekly team meetings, it was less appropriate to discuss identity-related issues during production planning meetings. However, during weekly team meetings, it was considered rude to cut-off an ongoing discussion to express one's views on the future identity of the venture. Like any other communicative act, utterances made about identity drafts had to connect seamlessly with prior communicative acts to retain the 'natural flow' of discursive encounters.

Both 'where' and 'who'-rules are directly connected to 'when'-rules. Together they define the appropriate interaction settings for sharing identity drafts. Giddens (1984: 119) refers to these regularized interaction settings as 'locales.' He describes locales as settings of co-presence governed by a set of tacitly shared rules of conduct. Thus, the locale defines the appropriateness of certain communicative acts. Locales also have a significant bearing on the 'what,' i.e. the content, of discursive encounters. Together, the dimensions of locales ('where,' 'who,' and 'when') and their regularized content ('what') constitute the situational practices of communication.

In our study, we identified three locales for sharing and negotiating identity drafts. Each of these locales differed considerably in terms of participation (who), timing (when), location (where), and content (what) (see Table 4-5). Spontaneous coffee chats provided the primary locale for team members to share their ideas and concerns about the venture's future. During these daily encounters, team members expressed, refined, modified, and aborted personally held identity drafts. Access to this locale was not restricted as the coffee break area was in an open space section directly next to the venture's office. Moreover, since the venture office was located in a different building than the senior managements' (CEO, CFO) offices, members could not only openly discuss their ideas and even utopias regarding the venture's future, but also express their personal concerns about views held by of the CEO and CFO. Coffee

chats contributed significantly to building a shared trust among team members; that which was said during these encounters stayed within the team and remained secret to superiors.

Table 4-5: Locales for Sharing Identity Drafts

Locale	*Who*	*When*	*Where*	*What*
Coffee chats	Members of venture core team; only rarely with CEO/CFO; open/ anybody welcome	daily; spontaneous	At the team office; semi-open setting; out of direct reach of the CEO/CFO	Anything from concerns to wild ideas to utopias; review of CEO/ CFO's view; 'idea testing' among friends and peers
Strategy Meetings	Formal team meetings incl. CEO/CFO; only held if all key members of the team are available	Regularly; previously scheduled	Meeting room at BU headquarters; semi-formal set-up; preparation of agenda and documents	Presentation and discussion of strategic options and key identity drafts; CEO/CFO to express their view
CEO Updates	CEO and author (*in participant role*)	Approx. every two weeks; spontaneous	Closed settings in the CEO office or off-site	Big picture; critical evaluation of strategic options and dominant identity drafts

Regularly held strategy meetings provided a second, more formal locale for sharing and negotiating identity drafts with team members and the company's CEO and CFO. In order to assure efficiency and focus, these meetings' overall setting and the procedures followed were much more structured than those of the coffee chats. Strategy meetings were always held in a meeting room or in the neighboring building where the BU management was located or in the venture team's office. Unlike informal chats during coffee breaks or in the hallways, strategy meetings normally required considerable preparation work from the venture team. Through the preparation of documents (e.g., Powerpoint presentations comprising the results of the assessment of strategic options and Excel spreadsheets with financial projections for DentalCo's project), the venture project was integrated into the administrative processes of the organization and the BU. These documents served as a basis for the CEO to decide on important issues, such as the company's strategic direction, the allocation of financial resources, and so forth. In these more formal strategy meetings, we found that only more mature and peer-tested strategic ideas and associated identity drafts were expressed, due to team members' fear of losing face in case the CEO felt a particular idea was not well thought through. Thus, the tacitly shared rules constituting

this particular locale as a regularized interaction setting for sharing identity drafts were much stricter than those constituting informal encounters.

Finally, the BU's CEO asked us (author), in his capacity as the Head of Business Development, to provide him with regular updates on the venture's progress. These update meetings often developed into intense discussions on the strategic options of what the venture should become in the future. The CEO of the BU not only expressed his view on the venture's future but also openly discussed the happenings in the broader organizational context and explained these events' possible implications for the venture. Occasionally, the CEO also expressed his personally held identity drafts. The update meetings took place in various locations, such as the CEO's office, in his car while on the way to meet a client, or during after-work dinners at restaurants. Common to all these meetings was that the locale was closed to other team members. One reason for this is that these meetings also provided the setting for discussing team related issues such as position changes, team members' strengths and weaknesses, and so forth – topics not meant to be discussed in front of the entire team. Sometimes, these update meetings served to prepare the CEO for an upcoming strategy meeting. Hence, these meetings provided the CEO with the opportunity to learn more about a variety of topics, including the goings-on in the team and which identity drafts were circulating among team members. Furthermore, the CEO could express his very personal thoughts on identity-related issues, knowing that we (author) would, after critical examination, fully support his views and decisions. Our close and longtime friendship provided the basis for a mutually open, trusted discussion on any relevant aspect of the venture.

For the venture, sharing identity drafts was confined to particular locales. These settings of interaction were regularized by tacitly shared rules about the 'when,' 'where,' 'who' and 'what' of discussions related to the venture's future. Team members drew upon these rules and a broad array of resources (e.g., written documents, etc.) to constitute these interaction settings and define them as primary locales for sharing identity drafts. By appropriating these rules and resources, i.e. the structural features of meaningful interaction, team members also reproduced them for future use. Moreover, by engaging in more formal strategy meetings – a form of social interaction common in the corporate context but normally less common for most non-corporate ventures – the team unintentionally and unknowingly reproduced the corporate structural context of the venture signifying it as part of a larger whole.

4.5.4 Playing Power Games

Actors often mobilize power to give weight to their arguments and "achieve desired and intended outcomes" (Giddens, 1984: 15; see also Rule #6). In structuration theory, power has 'two faces.' It refers to both the capacity to act and the capacity to mobilize resources as 'modalities of domination' (Giddens, 1984: 29) to influence the course of events. The latter implies that power itself is not a resource but the capacity to mobilize either allocative or authoritative resources in order to achieve desired goals. Thus, it is only in combination with the mobilization of these resources that power becomes an effective means to exert control over objects (via allocative resources) or other social agents (via authoritative resources). In organizations, an actor's social position constitutes such a resource. Positional power provides an actor with the capacity, for example, to direct the allocation of financial resources, to make decisions opposed by other members, and to define subordinates' tasks and roles. Such access to resources can be defined formally or informally. In each organization, access to resources as a means to influence events is distributed in a unique way. Moreover, Giddens (1979, 1984) stresses that even in situations of seemingly absolute domination, a social actor can always choose to act in a way which evades control. Consequently, power and control are always dialectic (Giddens, 1984: 16).

In the corporate venture, power games played an important role in discussions on identity drafts. We observed that team members regularly mobilized their formal and informal positional powers to directly or indirectly influence discourse on the venture's future identity. Since every team member realized the primary importance of this topic, power games were more intense and omnipresent than in discourses over less important issues. Team members could employ two strategies to promote or deter particular identity drafts. On the one hand, those team members with formal or informal authority could make use of their positional power to influence or direct the course of identity-related discussions. On the other hand, members of the team could mobilize power by leveraging relational or informational resources at their disposition, i.e. their close relation to those with formal authority or their access to certain information not available to other team members. For instance, team members tried to give weight to their arguments and views by bringing their close relationship with the CEO or CFO into play, indicating that this would allow them to receive senior management support if necessary. Alternatively, team members attempted to leverage their information advantage to gain informal authority among team members to

promote their views. Despite the routine-like use of 'power moves,' team members rarely employed them in a strategic-calculating fashion. Instead, such power games are a natural aspect of social life as actors try to achieve different interests. The following three examples illustrate how team members mobilized their sources of power to influence events to their advantage.

During one of the regularly held strategy meetings, the venture's core team presented to the CEO a range of strategic options derived from an in-depth analysis of the organization's core capabilities. Although the objective assessment revealed that it would be interesting to focus on producing high-performance bearings, the CEO of the BU argued that a focus on the dental implant business would not only offer significantly more upside potential but also deliver immediate results that would justify the necessary investments. Hence, he decided that the team should focus its energy on figuring out what it would take to become a key production partner for ceramic-based parts for clients in the medical and dental industry. On the one hand, this decision was intelligible, since the collaboration with DentalCo had already been going on for a while and the future looked highly promising with some 'quick wins' in the near term. Visible short-term results, he argued, would allow him to receive additional financial resources from the group that would in turn allow for a more aggressive growth of the venture. On the other hand, this decision fueled some discontent among team members. Not only were other options not considerably less attractive, but a close partnership with DentalCo would severely limit the venture's flexibility. Since a partnership required an investment into highly client-specific production capacities, the venture would become highly dependent on one single market and one client which was at the time still in a fragile start-up phase. Furthermore, to become an accepted supplier to companies active in the dental and medical area, the venture had to meet the high quality requirements for medical implants set by the ISO 13485 standard. Rearranging the existing production infrastructure for this standard would not only consume substantial financial resources and several months of work, but it would not be of any use if the venture later decided to produce parts for companies outside the dental or medical market. However, the CEO's expressed support for the dental strategy led some team members, who had previously advocated other strategic paths and identity drafts, to abandon their former view or at least limit discussions about alternative, provisional self-conceptions to settings in which the CEO was not present. Consequently, while other identity drafts were only marginally discussed in subsequent strategy meetings, conversations about

alternatives continued during daily coffee chats. Nevertheless, the CEO's decision to focus on becoming a supplier to the dental and medical market was a clear statement that significantly changed the course of the discourse on the venture's future.

The organization's CFO influenced the discussions on the corporate venture's vision and future identity by assuming his responsibility for the organization's financial stability and the optimal allocation of scarce financial resources. He frequently made use of both his positional power and formal control over the organization's financial resources to advocate his personal views and interests. Being born and having lived in the region where the original firm was founded and had become established, the CFO evaluated visions and identity drafts primarily along two factors: local job security and financial feasibility. Given this, the CFO was much more critical about the decision to focus exclusively on the production of dental implants for DentalCo. His concerns were justified by both the dependencies and risks this would entail and by the group CFO's official directive to postpone any significant investment until the group had recovered from the economic downturn. He repeatedly stressed that he only supported a path which would not require an investment of significant amounts and for which necessary investments were not highly project, client or market-specific. Furthermore, immediate investments had to be small enough that they could be made without getting consent from the Division Head and the group CFO. However, the BU CEO's decision to develop the venture into a partner of the dental and medical industry implied that the venture had to make a series of substantial and highly specific investments. The CFO contended that the build-up of this new business would not only consume too much substantial financial resources but significantly reduce the venture's flexibility to take on other business opportunities as they arise. He argued that the venture should thus adopt a much less focused and more opportunistic strategy. He suggested that the venture should become a recognized specialist in high-precision machining of high-performance ceramic materials with no particular industry, client or product focus. His identity draft for the venture contrasted with the CEO's views as it embraced a considerably broader view. However, in his formal position as the firm's CFO and as a strong advocate of local job security, his view had a significant impact on the subsequent discourses about the venture's future.

During our nine-month on-site investigation we also discovered that team members who had no formally assigned authority leveraged their relational ties and information advantages as 'modalities of domination' to influence discussions about alternative identity drafts. It was not the 'strength of weak ties' (Granovetter, 1973),

but the 'strength of strong ties' to those with formal or informal authority that allowed team members to leverage these links as a sources of power to promote and achieve their interests. Interestingly, strong ties to, for example, the CEO or CFO offered team members the opportunity to draw upon these ties to advocate views and pursue interests that do not necessarily conform to those held by the person the social tie referred to. The following statement by the Head of Production exemplifies this. During a coffee chat, he expressed his concerns about the CFO's standpoint to proceed without a clear market focus. He remarked:

> *"We should at least have some focus in what we do and not be too opportunistic in our strategy. Otherwise, it is very difficult for me to plan for the production infrastructure. I have worked with the CFO for many years now and know why he thinks broad is the best option. However, I will talk to him about my problem and tell him that, without any focus, we are wasting our limited resources."*

In this particular scene, the Head of Production leveraged his strong tie to the company's CFO to advocate a view and interests which partially countered those held by him. His strong tie to the CFO thus allowed him to make others team members believe that the CFO would listen to his concerns and maybe change his mind.

As actors have different interests, power plays, such as those presented above, formed an inherent part of day-to-day life in the venture team. However, members did not have to actively remind others of their positional power or the strength of their ties to those with formal or informal authority. Every team member was aware of these aspects and accounted for them in their daily conduct. Power, we learned, was not only effective when exercised through the mobilization of resources, but also when other members of the team anticipated that the others would make use of this source(s) of power to influence the course of events.

As the venture team's members mobilized allocative and authoritative resources as 'modalities of domination' to achieve their interests, they at the same time reproduced them as sources of power for future use. Moreover, since access to sources of power remained rather stable over time, social relations among team members were also stabilized. For instance, when the company's CEO drew upon his positional power to decide that the venture team should focus on the dental project, he not only achieved his interest by mobilizing his position as a resource but at the same time

unintentionally reproduced his positional power as a source of authority and the existing superior-subordinate relationship between him and the team.

4.5.5 Normative Anchoring

Team members made frequent references to shared norms to legitimate claims and their support for particular identity drafts. These shared social norms not only regulated the conduct of team members as they engaged in sharing and negotiating identity drafts, but some norms served as a legitimatory instance for particular identity drafts.

The CEO's and CFO's official commitment to securing local jobs provided the primary shared norm by which strategic options and identity drafts became evaluated. Views and suggestions related to the venture's strategy and implied identity draft which ran counter to this norm were sanctioned either by contestation or ignorance. Contestation occurred when team members uttered their support for an identity draft or strategic path which was conceived by others as less favorable to secure local jobs than other alternatives. In such situations, other team members argued that job security has priority. This norm, however, was not only enacted and enforced through overt and public contestation, but the possibility of being criticized or challenged for supporting an identity draft which was less promising to secure local jobs than other alternatives kept team members from advocating it in the first place. Thus, the norm which allowed team members to mobilize criticism against particular views also ensured that all new options basically conformed to that norm.

Alternatively, team members sanctioned certain identity drafts by simply ignoring utterances made for their support. Ignorance as a sanctioning mechanism was often employed when contestation did not keep team members from supporting particular identity drafts. For example, after the CEO had expressed that the venture team should focus on developing the venture into a supplier of ceramic-based parts for the dental and medical industry, he occasionally ignored arguments in favor of other identity drafts as well as criticism against pursuing his suggested path. On one occasion, after an intense discussion on the venture's prospective strategic direction, the CEO brought the discussion to an immediate halt after first ignoring comments brought forward, which were in favor of a view he did not share, and by subsequently asking the team to move on to the next point on the agenda.

Not only the CEO and CFO were able to mobilize sanctions. Instead, any member of the team could employ sanctioning measures in interactions to 'make a difference' to the ongoing discussions regarding preliminary, alternative self-conceptions. Although actors with positional power had access to a broader array of and more powerful sanctioning mechanisms (e.g., the capacity to lay off team members that were too critical of their view), norms were appropriated and reproduced by team members in regular day-to-day conduct.

Similar to authority, sanctions were not only effective when actually applied. The mere expectation of being sanctioned for a particular conduct constrained team members' actions. For instance, some team members feared that they could be laid off if they opposed the CEO's decision to focus on the medical market. As a consequence, they stopped openly criticizing his decisions. In some instances, it seemed that team members who were opposed to the situation still recognized the necessity of sticking together in order to successfully build-up the venture. Acknowledging this, they changed camps and started to actively support the CEO's decision to focus on the dental implant market. By showing active support, they signaled that they were not 'silent' antagonists but loyal followers. Thus, they changed their position although the sanction they feared was never actually applied.

Social norms can stand in either a complementary, non-interfering or conflicting relation to one another. Such tensions and contradictions between social norms are an inherent feature of social life. Therefore, as social actors, people must work out practical solutions to resolve them as they go about their daily lives. For example, the pivotal normative rule to secure local jobs in the long term stood in a somewhat conflicting relation to the demand to produce some visible 'quick wins' in order to legitimize the venture's existence within the textile division of the group and secure local jobs in the ongoing market downturn. This normative tension was directly perceivable in situations where team members discussed identity drafts and their requirement of financial resources. Since the CEO of the entire group had marshaled an investment stop and immediate cost cutting measures to stop the division from incurring losses, the venture team had to resolve the tension between this high level order and the locally shared norm to secure jobs. Thus, the venture team had to live up to contradictory normative claims supplied by the business unit management on the one hand and the group management on the other. To resolve this normative conflict, the team actively searched for a solution which would respect both claims. The organization's CEO demanded that the team works out a new plan which would

require minimal financial resources in order to stay under the threshold level for investments which additionally required the divisional head's or the group CFO's approval. By this, the team bypassed the 'no more investments'-norm supplied by group management so the build-up of the venture could still proceed.

The venture's commitment to long-term local job security conflicted, at least partially, with the need to maximize value for the mother company's shareholders. Being a public company required that each of the group's businesses conformed to the general norms associated with the public equity market. The group had to conform to the norm that shareholders were the owners of the group and thus the primary stakeholders who had to be served. This implied that the group had to optimize shareholder value and fulfill equity analyst expectations in order to remain an attractive investment target for investors. This also meant that, in the rapid decline of the financial market, the group's businesses had to return to profitability as quickly as possible so that investors would not lose confidence in the group. In a circulated email letter, the group's CEO stressed that each and every part of the group had to focus its resources and energy on its core business and its key clients to return to profitability as quickly as possible. This claim, however, stood in direct conflict with the decision to create a new venture to explore areas outside the company's core business. However, since the venture had not yet grown into a substantial business, the CEO and CFO of the BU decided to proceed with the build-up of the venture.

The moment norms were appropriated to legitimize conduct or particular identity drafts, the mobilized norms were reaffirmed as an elemental part of the overall structural context of (inter)action. Since members of the venture team eventually acted within the broader corporate context, they also drew upon an array of corporate norms. By this, they not only legitimized their conduct, but also unknowingly reproduced these norms for future use. Furthermore, giving primacy to securing local jobs in the long term supported views which considered the organization to have also a broader social responsibility.

4.5.6 Attracting Resources

To institutionalize a particular identity draft, members of the team either engaged in certain activities to attract resources or they created artifacts representing a provisional self-conception.

Prior to the start of our consulting assignment and our simultaneous field study, the Head of Engineering and Sales was the venture's only official employee. The venture had a very small annual budget at its disposal and no direct production capacities. The available budget was just enough for paying salaries, for participating in one or two fairs per year and for covering some general expenses (e.g., traveling, etc.). Whenever the Head of Engineering and Sales received an order from a client, he had to coordinate with the Co-Head Shop Floor to find a slot where he could use idle production capacities from the organization's state-of-the-art production infrastructure in order to complete the job. The venture was very much a one-man show where the Head of Engineering and Sales was responsible for winning new customer orders, ordering the appropriate raw materials, engineering the parts to be produced, coordinating the production of the order, and making sure the order was completed in time. To successfully operate the venture, he built a network of contact persons within the organization who were ready to support him in his project. He not only worked closely with the Co-Head Shop Floor, but also with the Head of Quality Management to make sure the produced parts met the agreed quality and precision levels. To prepare materials for fair exhibitions (e.g., banners, documents, etc.), the Head of Engineering and Sales worked closely with the Secretary of the CEO, as she was skilled in graphic design.

During our first two months on site, the venture operated in pretty much the same way it had before. However, over the following months, the venture team was not only assigned an additional staff member, but budget constraints and additional investments into the production infrastructure became a central topic of discussion. To realize one of the strategic options and its associated identity draft, the team had to convince the CEO and CFO to allocate additional funds to the venture. However, securing additional resources not only meant that the venture could proceed more aggressively, but depending on the uses of the additional resources it could develop into something different. Thus, proponents of particular identity drafts tried to secure resources to realize their vision for the venture's future or show the financial infeasibility of the identity drafts they considered less favorable.

To attract resources, the team had to follow the existing administrative procedures of the larger corporate context. For example, the CEO demanded that the team works out detailed financial projections resulting from a possible partnership with DentalCo and a list of necessary investments to be made if this route is to be pursued. The team then contacted production equipment manufacturers to determine

the costs of establishing a production line that conformed to the quality requirements in order to attain the required ISO 13485 certification and that was optimized for the production of dental implants for DentalCo. The team quickly found out that the required investment was considerable and that it would be difficult for the CEO and CFO to commit these resources without the consent of the division head and the group's CFO. In the following strategy meeting, we observed that the supporters of this strategy and identity draft tried to alleviate the investment problem by arguing that some investments, such as that of a clean room for sterilizing parts, could be deferred to later periods. Splitting the required investment over two or more periods was indeed a feasible way to solve the problem. However, the Head of Production, who was rather critical of the sole focus on DentalCo, argued that the investments were still highly client-specific allowing for little flexibility in case DentalCo could not realize its vision. He subsequently tried to convince the CEO and CFO to spend that money on equipment that would allow the venture team to more flexibly experiment with new materials and procedures to become the primary address for clients looking for prototyping knowhow.

Discussions on the availability of financial resources and the resource requirements continued for several months. During this time, discussions about the venture's strategy and future identity became increasingly focused on two alternatives. On the one hand there were those who supported the view that the venture should focus all its resources and energy on becoming a specialist partner of the dental and medical industry with the appropriate production infrastructure in place or a specialized partner for prototyping projects and small batch productions of ceramic-based high precision parts. While the first of these options required significant and highly client-specific resource commitments impairing the venture's strategic flexibility, the latter could also be pursued with only minor investments. Thus, the discussion over identity drafts had developed into maneuvers over resource attraction.

The way in which team members touted for financial resources was strongly influenced by the group's standard rules and procedures for investment decisions. To attract financial and other resources for a particular identity draft required that its proponents made transparent the costs of realizing a particular strategy. They had to submit documents, such as a financial plan, usually in the form of Excel spreadsheets, and an investment proposal summarizing the rationale and purpose of the investment. This was required, since the company's CEO and CFO had to have them available in case they had to justify the investment to the divisional or group management. By

following the corporate rules for investment proposals and decision-making, the venture team unknowingly reproduced these rules. Moreover, the team's conduct also re-produced the organization as an economic institution allocating its resources efficiently through a deliberate resource allocation process.

4.5.7 Creating and Mobilizing Artifacts

A second strategy pursued by venture team members to institutionalize a particular identity draft was to create artifacts that represented a particular vision or strategy.

When we arrived at the scene in spring 2008, we were surprised to find out that the venture had its own logo and even a dedicated website despite the general ruling of the group's corporate design/identity department that all companies within the group had to use the same logo and website. Primarily owing to the Head of Engineering and Sales, the venture had already created artifacts that clearly distinguished its identity from the overall group. Since the organization decided to venture into new areas, the Head of Engineering and Sales had been tireless to delineate the venture's activities from those of the organization and the business unit. Interestingly, the venture's logo did not even contain the name of the group but used the traditional name of the company prior to its acquisition in 2005. After being asked why he chose the old name for the venture's logo, the Head of Engineering and Sales simply replied: "For old time's sake." The company's logo also reflected the old one, signaling the hope that the venture would eventually help to revive the good, old times when the company was independent and flourishing. However, the logo was not a copy of the old one, but a new creation. It used the color scheme of the group's logo and combined the old name with the attribute 'ceramics.' It was a unique artifact fusing the company's past, present, and its future.

Although both the venture's logo and website were created in a time when the venture was still very small and following an opportunistic approach to growth, it created an initial sense of identity among the venture's supporters. However, due to its high generality, the logo did not represent a particular strategy or identity draft. Instead, the venture team created more specific artifacts comprising and representing certain provisional self-conceptions. For example, the Head of Engineering and Sales's vast collection of waste parts from prototyping orders (e.g., watch casings, etc.) or material tests served as artifacts to signal the venture's broad capabilities in

manufacturing ceramic-based parts with high precision and considerable geometrical complexity. Additionally, the Head of Engineering and Sales had set up a show case at the entrance to the venture's office displaying a broad variety of sample parts to employees and visitors. He also used these artifacts at fairs or sometimes brought sample parts to client meetings to demonstrate the venture's unique capabilities. Therefore, the frequent presence of these artifacts indirectly supported the view that the venture had unique capabilities which it could leverage across a broad range of industries and applications.

A written memorandum of understanding (MoU) signed with DentalCo manifested the venture's interest to discuss a close partnership. We discovered that supporters of the view that the venture should focus on the dental and medical sector referred to this artifact to stress that the venture had made some sort of preliminary commitment which could not simply be neglected. Although the MoU was a legally non-binding agreement about the basic aspects of a possible partnership, some team members were concerned that if the venture team did not do its best to thoroughly examine a close partnership with DentalCo, the venture's image could be negatively affected. Furthermore, this artifact signaled that the venture was already on its way to becoming a specialist producer of ceramic-based parts for the medical and dental industry, which made it difficult to dismiss this view since it represented an initial commitment.

Team members mobilized a variety of artifacts to express their support of a particular identity draft or to distinguish the venture from the organization and the group of which it was a part. Actors drew upon these artifacts as resources to 'make a difference' in the course of events. The effective mobilization of artifacts for the promotion of an identity draft, however, required a great level of practical skillfulness on the part of the actors.

4.6 Discussion and Conclusion

In this paper, we sought to show how structuration theory can be fruitfully employed to explore and interpret the doings of organizational members. To achieve this goal, we adopted a two-step approach.

In a first step, we wanted to better understand the epistemological and methodological implications of structuration theory. We believe that both structuration

theory's high complexity and Giddens's (1976, 1979, 1984) lack of concern with these issues have been the main obstacles to the adoption of his analytically powerful social ontology. By assessing structuration theory's status as a 'research programme' as well as by revisiting Giddens's comments on these issues and summarizing them into a set of fairly simple rules of inquiry, we intended to make structuration theory more accessible to scholars in organization studies. In the methodology section, we showed how this set of basic principles can be translated into a research strategy and into an appropriate research design.

In a second step, we provided a brief ethnographic study that illustrates some of the basic features of a structurationist account. For this purpose, we decided to explore and analyze the practices involved in identity work in a corporate start-up. We developed a basic typology of the relevant practices and discussed each practice in detail, offering a structurationist interpretation of goings-on. This allowed us to conceive the identified practices as skillful accomplishments of knowledgeable agents drawing on rules and resources supplied by the venture's structural context. We explained how the structural context both enabled and constrained team members' conduct as they created, shared, negotiated, and institutionalized identity drafts to resolve the high identity ambiguity experienced.

4.6.1 Contributions

Our account contributes to several research streams. First, it contributes to previous efforts to clarify epistemological and methodological aspects of structuration theory (e.g., Bryant, 1991) as well as the use of structuration theory in organization research (e.g., Whittington, 1992; Pozzebon, 2004; Pozzebon & Pinsonneault, 2005). Given the frequent criticism of Giddens's neglect of these issues (e.g., Gregson, 1989; Bryant, 1992), we were surprised to find that none of his critics appeared to have sought to fill this gap. It has been argued that this was essentially an issue Giddens had to resolve himself (Bryant, 1992). We do not believe that Giddens will provide such an account more than 30 years after introducing his social theory in 1976. His focus has long shifted from a concern with theoretical issues towards more substantial topics and a direct political engagement. We realized that if structuration theory were to expand its influence upon social research in general and the study of organizations in particular, someone else will need to step in and formulate an epistemological-methodological

supplement to Giddens's ontology, which is what we did in this paper. We do not claim that our propositions resolve all epistemological and methodological matters of structuration theory. However, our assessment of structuration theory's status as a 'research programme,' the consolidation of Giddens's comments into a few convenient rules of structurationist inquiry, and the detailed elaboration of a research strategy and design aligned to these principles provide a starting point for such a philosophical companion.

Second, this paper contributes to the allegedly ongoing 'practice turn' in organization research. For instance, our findings on the 'power plays' involved in identity drafting confirm and complement other organizational studies' findings on political practices in organizations, such the formation of coalitions (March & Olson, 1976), the allocation of scarce resources (Burgelman, 1983), and the enactment of hierarchical authority (Mintzberg, 1973). Sharing and negotiating identity drafts was also very much a matter of issue selling (Dutton et al. 2001). Furthermore, the practice of resource attraction can be considered as directly linked to the administrative practice of budgeting (Ahrens & Chapman, 2005). Finally, Giddens's concept of 'locale' complements the notion of episodic practices. Locales are the spatial units situationally filled with episodic practices. The fact that this paper complements earlier practice-based research so well is not an inherent feature of Giddens's social ontology. Although structuration theory is essentially a practice theory, Giddens does not stipulate that the only form of study to be informed by structuration theory is the investigation of the micro-level social practices. Instead, structuration theory is also open to the investigation and interpretation of macro-level regularities as combinations of intended and unintended consequences of action (e.g., Giddens, 1984: 347) as well as the selective rather than wholesale use of structurationist concepts (e.g., Giddens, 1989: 294).

Third, this account contributes to research on organizational identity in several ways. For one, our practice-based account provides a unique alternative to both the reification and narrative perspectives on identity in organizations. By adopting a structurationist stance towards the constitution of identity in particular, we avoid the shortcomings and pitfalls of both the objectivist and subjectivist ways of conceiving identity in organizations. In our approach, identity is neither an object-like, independent entity, nor a mere assemblage of narratives devoid of any ontological depth. Giddens's social theory allows us to retain the analytical distinction between agency and structure as it offers a coherent argumentative logic as to how the two are

ontologically interrelated. By adopting this logic, we can provide credible interpretations of the goings-on in the field and open up new avenues for studying organizational identity as the outcome of organizational members' skillful conduct. Furthermore, we introduced the concept of 'identity drafts' to describe how the corporate venture team created provisional, alternative self-perceptions, and self-images to deal with high identity ambiguity. While previous research argued that managers engage in the practice of sense-making (Weick, 1995b) and sense-giving (Gioia & Chittipeddi, 1991) to resolve identity ambiguity, we contend that this may only be feasible if identity ambiguity is moderate and manageable. When an organization's self-image is dissolved by radical internal or external changes or when a newly established organization has not yet formed a shared sense of identity, it may be very difficult or impossible for managers to restore identity by retreating into the organization's culture for identity cues (Ravasi & Schultz, 2006). We also contribute to research on organizational identity in that our analysis of the creation of new identity drafts through importing image drafts and cues from stakeholders complements existing research on stakeholders' roles in identity construction (e.g., Berg & Gagliardi, 1985; Gioia, 1998). We revealed how social actors skillfully interpret and mediate clues supplied by clients, suppliers, and other stakeholders to create new identity drafts or change existing ones. Further, this paper contrasts the different postmodern narrative-procedural views of identity construction in organizations by showing that identity work is much more than just an endless power game or struggle as suggested by, for example, Clegg (1994) as well as Humphrey and Brown (2002). Certainly, power and domination play an important role in identity construction. However, there is an array of other aspects to it, such as the communication and legitimation of particular views. Finally, this study's findings suggest that an organization's identity is not the product of a few people, but a fluid phenomenon and social accomplishment that emerges from day-to-day social interactions. This implies that our account stands in sharp contrast to the 'engineering view' of organizational identity, as represented by the reificationists and partially also the post-structuralists. Managers cannot simply craft an organization's identity. At best, they can assume the role of 'catalysts for change' guiding organizational members and providing the right environment for restoring or continuously renewing a shared sense of identity in the case of identity ambiguity.

4.6.2 Limitations

Our account also has some shortcomings. First of all, our introduction of a handy set of rules for structurationist inquiry strongly simplifies the complex problem of providing a philosophical background for structuration theory. Giddens's complex socio-theoretical account and his reluctance to subscribe to a particular philosophical position make it difficult to grasp his epistemological and methodological standpoints. Thus, while the set of rules presented in this paper may be useful for organization researchers who are looking for some guidance when employing structuration theory as analytical lens in their research projects, it may not be sufficient for social theorists and philosophers of science interested in a comprehensive solution to the problem.

Second, our empirical study of identity drafting was confined to a single setting. This may be an appropriate strategy to conduct an explorative study to discover new aspects of a phenomenon, especially if the case setting represents an extreme case with regard to the topic to be investigated (Yin, 2003), or if the topic is itself new (Eisenhardt, 1989b). However, it raises questions about the generalizability of discoveries made. Our findings may not be generalizable to other contexts and situations of high identity ambiguity. To confirm our discoveries, this study should be replicated in other research settings with varying degrees of identity ambiguity. In doing so, we can be more confident that our findings are not idiosyncratic to the corporate venture we studied.

Third, our study sought to explore the breadth of practices involved in identity drafting. As a result, our account may lack some analytical depth in respect of each practice identified. For example, we did not analyze each practice with regard to possible within-practice variability. Furthermore, the examples presented were primarily selected based on their capacity to illustrate a particular point or proposition. Having selected them purposively and not in a random fashion may thus lead to a selection bias. It would therefore be very useful to explore each practice separately.

Fourth, using participant observation as primary data collection method has advantages as well as disadvantages. While it allowed us to get close to the doings of the actors whose conduct we studied, the participatory part of our role may have transformed the object of inquiry. We sought to control for this by only using sample situations in which we were primarily observers, keeping our participation to a minimum. However, given our key role in the corporate venture, we cannot rule out

that the practices involved in identity drafting were somehow influenced by our conduct in the field.

Finally, using structuration theory as analytical lens provides a particular view of social life that may foreclose the perception of other relevant aspects and alternative interpretations of goings-on. For example, structuration theory does not consider emotional aspects of social life – a dimension that is needed for a deep understanding of the conduct of actors engaged in identity (re)construction. Furthermore, Giddens's theory is complex, abstract, and general; it also leaves considerable room for interpretation. Hence, it is an open question as to whether other researchers conducting the same study would have developed exactly the same findings.

4.6.3 Future Research Avenues

Future research can advance our work at both the methodology level and the topic level. At the methodological level, scholars can work out and use alternative research strategies and designs to employ structuration theory in empirical research projects. Since the choice of research strategy is highly dependent on the overall research goal and the research questions, it would be interesting to see which strategy is best suited for which type of research questions. This is, to some extent, what Pozzebon and Pinsonneault (2005) tried to accomplish for IT research. By extending their general analysis to organization research, researchers will be provided with a tool set that allows them to realize structuration theory's full analytical potential.

In terms of the topic of organizational identity, future research can advance our account in several ways. First, it would be interesting to see whether our findings hold for comparable settings of high identity ambiguity, or whether they are highly idiosyncratic to the setting we studied. To perform this test, researchers could either conduct other qualitative studies of identity work within single, comparable settings or comparative qualitative studies covering multiple settings of high identity ambiguity. Furthermore, comparing the practices involved in identity construction across settings with variable identity ambiguity could validate our proposition that organizational members develop identity drafts primarily in situations of high identity ambiguity, but not necessarily if identity is moderate and manageable. Testing this proposition in a larger quantitative study would also be interesting, as this could validate our suggestion that identity ambiguity is in fact a decisive factor in how organizational

members restore a shared sense of identity in various situations of identity ambiguity. Second, conducting focused in-depth explorative studies for each of the practices involved in identity drafting (e.g., importing image clues, projecting strengths, etc.), either in single settings or simultaneously across multiple settings, would provide us with a better understanding of the various micro-processes involved in these practices. For example, it would be interesting to learn under which circumstances organizational members adopt image clues provided by stakeholders and under which circumstances they do not. Last but not least, assessing the occurrence of particular practices of identity work across time could provide valuable insights into the temporal patterns involved in identity construction. Time is a fundamental feature of social life and any understanding of goings-on is incomplete if the temporal ordering of actors' doings is ignored.

5.   Discussion and Conclusion

We started this dissertation with the claim that we will make the case for the use of Giddens's (1976, 1979, 1984) theory of structuration in organization studies. Giddens's powerful socio-theoretical framework has not only contributed to the resolution of dualisms within social theory, but has also inspired organization scholars to reconcile disparate views in diverse topic areas, such as organizing (e.g., Ranson et al., 1980), technology use in organizations (e.g., Orlikowski, 1992), organizational discourse (e.g., Heracleous & Hendry, 2000), and organizational intelligence (e.g., Akgün et al., 2007), to name a few. However, while the use of structuration theory to explore organizational phenomena from a new, more integrative perspective holds much promise, the development of structurationist accounts has remained the preoccupation of a few. A primary reason for this is that, for scholars less proficient in structuration theory, it has not only been difficult to 'see' the explanatory potential of Giddens's complex and comprehensive social theory, but also unclear how they can use structuration theory's broad array of concepts in theory building as well as in conducting empirical research. While these issues are bound up with complex philosophical questions related to the epistemological status of structuration theory, we did not seek to formulate a philosophical companion to structuration theory, but rather to provide some practical guidance for organization scholars interested in the use of social theory in general and structuration theory in particular.

In this concluding section, we synthesize the key results from the three separate papers presented herein, discuss our main contributions to existing research streams, point to some limitations, and summarize some interesting future research avenues. To avoid unnecessary redundancy in relation to the discussion and conclusion sections in each of the three papers, we will address the main points and provide an overall picture.

5.1   Summary and Synthesis

In the first paper, we assessed a sample of 17 articles related to different notions of organizational intelligence that have drawn considerably on structuration theory's rich body of concepts. A brief review of the main research threads on organizational

intelligence and the different uses of the term allowed us to grasp the breadth of issues covered by the term 'organizational intelligence.' To identify the structurationist accounts relevant to this topic, we employed *ISI Web of Knowledge's* Cited Reference Search function to perform a broad citation search and analysis covering 12 journals and 34 years (1976 to 2010), applied a set of filters (language, subject area, selected journals), conducted an iterative keyword search, and manually reviewed every article in the remaining sample to ensure that it (a) actually relates to the topic of organizational intelligence in a broader sense and (b) in fact makes substantial use of structuration theory. To structure our subsequent analysis and discussion, we grouped the remaining articles regarding their primary notion of organizational intelligence (e.g., information-processing, knowledge/knowing, learning, adaptation). To assess how authors have made use of structuration theory in their accounts, we extracted from Giddens's comprehensive social theory 16 dimensions that we consider central (6 related to agency, 6 related to structure, and 4 related to reconciliation, i.e. the interplay between agential and structural dimensions). In the main part of the paper, we discussed each of the 17 articles in our final sample and assessed each article's use of structuration theory's concepts by assigning a simple integer score, ranging from 0 to 3 for each of the 16 dimensions (where 0=no use; 1=marginal use; 2=considerable use; 3=central to the account). Such an analytical approach allowed us to draw a detailed map depicting how organizational intelligence scholars have employed structuration theory in their accounts, in terms of both frequency and intensity. The findings/scores from each paper were first aggregated according to the different notions of organizational intelligence and, finally, compiled to assess the overall frequency and intensity of use of structuration theory's concepts. Our concluding frequency-intensity comparison revealed that scholars have primarily adopted two of Giddens's concepts: structuration and duality of structure. Both concepts exhibited high frequency and intensity scores. Less frequent but also highly intensive were the uses of concepts such as routine (e.g., Howard-Grenville, 2005) or structures as sets of rules and resources (e.g., Mengis & Eppler, 2008). In contrast, propositions such as 'ontological security' or the unintended consequences of action found little recognition among organizational intelligence scholars. All in all, our 'mapping' of the use of structuration theory in organizational intelligence research revealed that there are ample research opportunities left to further advance the field.

In the second paper, we employed structuration theory to develop a practice-based theory of foresight in organizations that transcends existing dualisms in

foresight research, such as individual vs. organizational foresight, foresight as activity/process vs. foresight as capability, and foresight vs. hindsight. We argued that these dualisms are grounded in the field's fragmentation and under-theorized status. Furthermore, these dualisms resemble those in social theory that Giddens set out to transcend. However, in order to employ structuration theory in our theory building endeavor, we first had to clarify the role that abstract and general social theory can play in theory development. We argued that social theory can basically be used either as 'sensitizing device' in the formulation of Mertonian-type theories of the middle range, or as 'template' to formulate what we called 'substantiated theories' through disciplined theoretical reflection. In addition, we addressed some important questions arising from the decision to use structuration theory as analytical or explanatory framework. In the main part of the paper, we proposed a definition of foresight as practice and applied the methodological propositions made in the previous part to develop a new theory of foresight in organizations. We drew on Giddens's 'stratification model' of the actor and his analytical trisection of practices to explore the personal-existential, socio-interactive, and structural-institutional dimensions of foresight. The result is a theory that grasps foresight both at the level of meaning and causality. In the paper's final part, we then used our new theory to reconcile existing dualisms in foresight research.

In the third paper, we explored how structuration theory can be applied in empirical inquiries. To clarify this with an example, we conducted a 9-month participant-observatory study of identity (re)construction performed by members of a corporate venture. While previous research on identity construction in organizations has recognized the issue of identity ambiguity (e.g., Corley & Gioia, 2004) and has proposed sense-making (e.g., Weick, 1995), sense-giving (e.g., Gioia & Chittipeddi, 1991), and a 'retreat' into culture for cues (e.g., Ravasi & Schultz, 2006) as strategies to resolve it, we argued that these managerial strategies may not be feasible in the case of high identity ambiguity. High identity ambiguity may exist in cases of radical identity disruption or in the absence of a shared past identity, for example, as is the case in start-up companies. Our empirical study revealed that members of the venture team engaged in several discernible practices to create, share, negotiate, and institutionalize 'identity drafts,' i.e. alternative, provisional, and future-oriented blueprints of organizational self-conception. In the process, they transformed diffuse identity ambiguity into a set of identity options that they could then discursively attend to. To further analyze the routine doings of team members during identity drafting, we

developed a simple typology of the practices we discovered and analyzed each one in detail. However, interpreting the different practices involved in identity drafting from a structuration perspective required that we designed our study in a way that it can account for the corresponding requirements of such a perspective. To provide a solid methodological basis, we thus reflected upon structuration theory's status as a 'research programme' and presented a practical set of general rules for employing Giddens's social theory in empirical research projects.

If we look at the three papers from a general perspective, they address three important questions concerning the use of structuration theory in organization research: 1. How can organization scholars assess Giddens's impact on their field of study and discover unchartered territories? 2. How can organization theorists employ structuration theory in theory development endeavors? 3. What does it entail if organization researchers want to use structuration theory in empirical inquiries? Each of the three papers addresses a different question. However, to stimulate interest in and use of Giddens's structuration theory among organization scholars, we did not overly dwell on the complex philosophical questions that arise from the use of structuration theory in organization research. Instead, we focused on providing some practical guidance to make Giddens more accessible to a broader group of organization scholars.

5.2   Contributions

As stated earlier and cognizable from the above summary, each of the three articles seeks to contribute at the levels of topic as well as methodology.

Our first paper makes several contributions to research on organizational intelligence. Our review of the different research threads and notions of organizational intelligence briefly summarizes the variegated meaning of the concept and the breadth of topics covered under the label of organizational intelligence. Such a broad view allows other organizational intelligence scholars to locate their work in a broader context. Second, our account is the first to assess the impact of structuration theory on this field of study. While scholars have previously discussed the impact of structuration theory on management research (e.g., Whittington, 1992), strategy research (e.g., Pozzebon, 2004), or information systems research (e.g., Jones & Karsten, 2008), nobody has done so with regard to the topic of organizational

intelligence and its various notions, such as information-processing, knowledge/knowing, learning, adaptation, sense-making, and foresight. Third, our approach to assessing structuration theory's impact is much more analytical. By analytically distinguishing between 16 dimensions of structuration theory, our assessment is clearly more detailed, allowing for the evaluation of different strategies authors have used to put Giddens to work in their accounts and the identification of unchartered territories.

Our second paper complements other practice-based theories, such as those in the fields of strategy (e.g., Mintzberg, 1987; Hendry, 2000; Jarzabkowski, 2000, 2003, 2004; Whittington, 1996, 2002, 2003; Samra-Fredericks, 2003), sense-making (e.g., Weick, 1979), sense-giving (e.g., Gioia & Chittipeddi, 1991), and storytelling (e.g., Boje, 1995). It considerably extends earlier accounts that have approached the topic of foresight from a 'practice' perspective (e.g., Slaughter, 1995; Schwandt & Gorman, 2004; Tsoukas & Hatch, 2001), which were fairly superficial. Further, our account adds to the structurationist thread of organization research, which has addressed a diversity of topics such as organizing (e.g., Ranson et al., 2004), communication (e.g., Yates & Orlikowski, 1992; Orlikowski & Yates, 1994), discourse (e.g., Heracleous & Hendry, 2000), organizational knowing (e.g., Hargadon & Fanelli, 2002; Orlikowski, 2002; Godall & Roberts, 2003; Black et al., 2004; Mengis & Eppler, 2008), learning (e.g., Berends et al, 2003; Bresnen et al., 2004), and adaptation (e.g., Staber & Sydow, 2002). Our account establishes the topic of foresight as an additional research thread investigated from a structuration perspective. From a methodological perspective, this article contributes to the theory building thread within organization studies (e.g., Whetten, 1989; Bacharach, 1989; Sutton & Staw, 1995; Weick, 1995a), as it provides some general guidance regarding the use of social theory in formulating meso-level theories of organizational phenomena.

Like our second paper, the third in the series contributes to the practice thread of organization research and, at a more substantive level, to organizational identity research. It offers a fresh perspective on 'identity work' in organizations, contrasting with both the 'reificationist' (e.g., Albert & Whetten, 1985) and the narrative (e.g., Humphrey & Brown, 2002; Chreim, 2005; Brown, 2006) views of organizational identity. Our practice-based account avoids not only the former's shortcoming to regard identity as something fixed, but also the latter's overemphasis of the role of power in discursive encounters. In addition, our newly introduced notion of 'identity drafting' grasps how members of organizations transform diffuse identity ambiguity

into provisional self-conception blueprints in situations of high identity ambiguity. While previous research has concentrated on identity (re)construction by means of managers' engagement in sense-making (e.g., Weick, 1995b) and sense-giving (e.g., Gioia & Chittipeddi, 1991) in cases of low to moderate identity ambiguity, our investigation focuses on the 'extreme case' where a shared sense of identity has not yet been established. Since we investigate each of the different practices involved in identity drafting, our empirical findings contribute to previous research on, for example, the political practices in organizations (e.g., March & Olson, 1976), the allocation of scarce resources (e.g., Burgelman, 1983), the enactment of hierarchical authority (e.g., Mintzberg, 1973), and issue selling (e.g., Dutton et al., 2001). In addition, our findings on the practice of 'image importing' support the view that stakeholders play an important role in identity construction (e.g., Berg & Gagliardi, 1985; Gioia, 1998). Our analysis of 'power plays' complements accounts such as those of Clegg (1994) as well as Humphrey and Brown (2002) on the role of power in identity construction, although we do not conceive of identity construction as an endless power game. At the methodological level, we make a contribution to the broader discussion concerning structuration theory's status as 'research programme' (e.g., Bryant, 1991) as well as the use of structuration theory in organization research (e.g., Whittington, 1992; Pozzebon, 2004; Pozzebon & Pinsonneault, 2005).

5.3   Limitations

The three articles also have shortcomings. We will merely summarize them here, as we have discussed them in considerable detail in each paper.

Our radically analytical approach to assessing structuration theory's impact on organizational intelligence research, presented in the first paper, tacitly assumes that Giddens's comprehensive theory can be analytically divided into 16 dimensions. Although Giddens's (1989) has advocated the selective use of his concepts, by decomposing his highly integrated theory into a set of discrete dimensions that can then be employed to 'measure' the impact of structuration theory on a particular publication, this may suggest more objectivity than there in fact is. To arrive at precisely 16 dimensions – no more, no less – is the outcome of our reading of structuration theory. Had we considered other or a different number of aspects as being central to Giddens's theory, the outcome may have deviated from the findings we

presented. Furthermore, while using discrete scores to 'measure' the use of structuration theory in the publications assessed has simplified the task, it also assumes that there is in fact a clear dividing line between, for example, the moderate and a more substantive use of a particular aspect of structuration theory. However, there is not. Each publication analyzed employs structuration theory and its concepts in a unique way. At the topic level, one shortcoming may be that we have posited organizational intelligence as an umbrella term for different topics such as learning, knowledge, sense-making, information-processing, and so on. This disregards the fact that scholars may not conceive of their study area (e.g., learning) as a part of organizational intelligence.

The second paper's primary limitation is that we had to retain much of the complexity of structuration theory and use its language to reconcile existing dualisms in foresight research. Organization scholars less proficient in social theory, and structuration theory in particular, may find our account hard to comprehend, or even confusing. If clarity and simplicity are regarded as quality criteria for theories, then our account seems somewhat limited. In addition, as we have built our account solely through disciplined theoretical reflection, our propositions are not empirically validated. To argue that meso-level theories derived from social theories also retain some of the latter's empirical validity does not compensate for this shortcoming. Further, our theory is relatively abstract and general as it does not take into account the idiosyncrasies of particular organizations. By setting the boundaries very wide, we jeopardize the plausibility and credibility of our account (Whetten, 1989). However, the need for a high level of generality arose from the objective to resolve conceptual dualisms in the field of organizational foresight. At the methodology level, our account is subject to what we called 'indeterminacy of specification,' in other words, our translation of structuration theory into a theory of foresight in organizations could also have been done differently. Other scholars may have built on other components of structuration theory to formulate a theory of foresight, or they may have arrived at different propositions, even if they used the same conceptual parts (e.g., the stratification model of the actor). Finally, while our theory's comprehensiveness and complexity may already constitute a hurdle for organization scholars, this hurdle may be even higher for practitioners. Although our findings may be very interesting and valuable for managers looking to 'manage' foresight in their organization, our account does not offer any practical advice as to how this can be done.

The third paper's limitations can be summarized as follows: Since our goal was to explore the breadth of practices involved in identity drafting, the account lacks some analytical depth in respect of each practice analyzed. For example, we did not analyze potential within-practice variability, and our examples were primarily selected based on their capacity to illustrate a specific point or proposition. Further, focusing on a single empirical setting carries the risk that the findings are idiosyncratic to the case presented. While the 'extreme case' presented is appropriate for exploring the newly introduced notion of identity drafting, the findings may not be generalizable to other settings. This is a general shortcoming related to single-setting studies (Yin, 2003) and not specific to our account. Nevertheless, this study should be replicated in other settings, ideally with varying degrees of identity ambiguity, to increase the validity of our propositions. Regarding the methodology employed, we can identify two additional limitations. First, while providing a handy set of rules for the use of structuration theory in empirical inquiries may provide organization scholars with some guidance, it simplifies the complexity involved in providing Giddens's theory with a sound philosophical companion. Especially social theorists and philosophers of science may find our handling of this problem unsatisfactory. Second, using participation observation as a primary means to collect data has its advantages, but also its disadvantages. While it allowed us to get close to the doings of the actors whose conduct we studied, the participatory part of our role may have transformed the object of inquiry. Although we sought to control for this by presenting only exemplary situations in which we were primarily observers, we cannot rule out that the practices we identified and analyzed were somehow influenced by our conduct in the field.

With regard to the overall thesis, additional limitations arise from our decision to deal with methodological issues directly within our accounts, rather than formulating them separately. This approach required us to remain pragmatic and to avoid getting too entangled in philosophical details. Thus, our methodological and epistemological claims may considerably simplify the issue of using structuration theory for theory building and empirical research. However, Giddens provided us with the motivation to 'resolve' the topic in a pragmatic way when he states that it is not necessary to conclusively resolve philosophical debates before initiating social research (Giddens, 1984: xvii).

Another limitation results from our limited engagement with providing practitioners with practical tools or solutions that they can employ to implement our findings in their organizations. As it seems that this is a more general shortcoming of

most practice-based accounts, we will address this in the following section on future research avenues.

5.4   Future Research Avenues

In each of the three papers, we have pointed to interesting questions for future research. Instead of simply reiterating them here, we want to provide a somewhat broader picture as well as outline three major lines for future research.

First, scholars can pick up some of the research questions formulated in our papers and thereby advance our work. They can build on our detailed map and comments on the impact of structuration theory on organizational intelligence research so as to explore yet unchartered territories. Additionally, scholars could validate our theory of foresight in organizations by 'testing' our propositions in empirical settings. Finally, organization scholars could further enhance our account of identity drafting by elaborating each practice introduced in our typology or by validating our findings through additional – ideally multiple-setting – investigations.

Second, while we have, in this thesis, chosen a pragmatic approach to addressing issues of epistemology and methodology, the need to address and resolve these issues at the philosophical level remains. Given that structuration theory has had a lasting impact on many study areas (see Bryant, 1999), and given the considerable amount of criticism Giddens received for not engaging in discussions on the philosophical status of his theory (e.g., Bryant, 1992), it is surprising that none of his critics or supporters have comprehensively dealt with these issues. However, addressing the epistemological and methodological consequences of Giddens's social ontology is crucial to further establishing structuration theory as a viable alternative to mainstream organization theorizing, as scholars will otherwise remain hesitant to accept structuration theory as analytical framework. Due to the philosophical complexity involved in these issues, organization scholars may in fact not be the right persons to resolve them.

Third, future research should focus on developing practical tools for managers that incorporate structuration theory's reasoning. During our broad literature search for our dissertation, we found only one article that claims to make a direct contribution to the practical management of social practices from a structuration perspective: Mengis and Eppler's (2008) study of explicit conversation rules in organizations. Their study

seeks to explore which explicit rules facilitate sense-making and social knowledge processes in organizations. Knowledge about these rules, they propose, would allow managers to 'intervene' in the conversational behavior of organizational members and influence processes of knowledge sharing and building. However, while their study's goal is a laudable one, their account lacks the practicability and simplicity necessary for tools to be applied by managers. However, providing managers with simple and powerful tools to 'manage' their organizations as nets of fluid social practices could spur a 'market pull' for more practice-oriented organization research.

References

Adam, Barbara (1994): *Time and Social Theory*. Cambridge: Polity Press.

Aguilar, Francis J. (1967): *Scanning the Business Environment*. New York: Macmillan.

Ahrens, Thomas & Christopher S. Chapman (2005): Management Control Systems and the Crafing of Strategy: A Practice-Based View. In Christopher S. Chapman (ed.), *Controlling Strategy: Management, Accounting, and Performance Measurement*, pp. 106-123. New York: Oxford University Press.

Ahrens, Thomas & Christopher S. Chapman (2007): Management Accounting as Practice. *Accounting, Organizations and Society*, 32, 1-2, pp. 1-27.

Akgün, Ali E., John Byrne & Halit Keskin (2007): Organizational Intelligence: A Structuration View. *Journal of Organizational Change Management*, 20, 3, pp. 272-289.

Albert, Stuart, Blake A. Ashforth & Jane E. Dutton (2000): Organizational Identity and Identification: Charting New Waters and Building New Bridges. *The Academy of Management Review*, 25, 1, pp. 13-17.

Albert, Stuart & David A. Whetten (1985): Organizational Identity. In Larry L. Cummings & Barry M. Staw (eds.), *Research in Organizational Behavior*, Vol. 17, pp. 413-461. Greenwich, CT: JAI Press.

Albert, Stuart & David A. Whetten (2004): Organizational Identity. In Marry H. Hatch & Majken Schultz (eds.), *Organizational Identity: A Reader*, pp. 89-118. New York: Oxford University Press.

Aldrich, Howard & Diane Herker (1977): Boundary Spanning Roles and Organizational Structure. *The Academy of Management Review*, 2, 2, pp. 217-230.

Allee, Verna (1997): *The Knowledge Evolution: Expanding Organizational Intelligence*. Boston, MA: Butterworth-Heinemann.

Allee, Verna (2002): *The Future of Knowledge: Increasing Prosperity through Value Networks*. Boston, MA: Butterworth-Heinemann.

Althusser, Louis (1969): *For Marx*. London: Allen Lane.

Alvesson, Mats & Laura Empson (2008): The Construction of Organizational Identity: Comparative Case Studies of Consulting Firms. *Scandinavian Journal of Management*, 24, 1, pp. 1-16.

Anderson, K. L. (2001): Reconciling the Electricity Industry with Sustainable Development: Backcasting as a Strategic Alternative. *Futures*, 33, 7, pp. 607-623.

Andriopoulos, Constantine & Manto Gotsi (2006): Probing the Future: Mobilizing Foresight in Multiple-Product Innovation Firms. *Futures*, 38, 1, pp. 50-66.

Ansoff, Igor H. (1975): Managing Strategic Surprise by Response to Weak Signals. *California Management Review*, 18, 2, pp. 21-33.

Appelrouth, Scott & Laura D. Edles (2008): *Classical and Contemporary Sociological Theory: Text and Readings*. Thousand Oaks, CA: Pine Forge Press.

Archer, Margaret S. (1982): Morphogenesis versus Structuration: On Combining Structure and Action. *British Journal of Sociology*, 33, 4, pp. 455-483.

Argyle, Michael (1972): Nonverbal Communication in Human Social Interaction. In Robert A. Hinde (ed.), *Non-verbal Communication*, pp. 243-267. Cambridge, UK: Cambridge University Press.

Argyris, Chris & Donald A. Schön (1978): *Organizational Learning: A Theory of Action Perspective*. Reading, MA: Addison-Wesley.
Arthur, W. Brian (1989): Competing Technologies, Increasing Returns, and Lock-In by Historical Events. *The Economic Journal*, 99, March, pp. 116-131.

Arthur, W. Brian (1990): Positive Feedbacks in the Economy. *Scientific American*, 262, pp. 92-99.

Ashford, Blake E. & Fred Mael (1996): Organizational Identity and Strategy as a Context for the Individual. *Advances in Strategic Management*, 13, 1, pp. 19-64.

Atkinson, Dick (1971): Orthodox Consensus and Radical Alternative: *A Study in Sociological Theory*. London: Heinemann.

Baber, Zaheer (1991): Beyond the Structure/Agency Dualism: An Evaluation of Giddens' Theory of Structuration. *Sociological Inquiry*, 61, 2, pp. 218-229.

Bacharach, Samuel B. (1989): Organizational Theories: Some Criteria for Evaluation. *The Academy of Management Review*, 14, 4, pp. 496-515.

Bachrach, Peter & Morton S. Baratz (1962): Two Faces of Power. *The American Political Science Review*, 56, 4, pp. 947-952.

Bakhtin, Mikhail M. (1986): *Speech Genres and Other Late Essays* (translated by Caryl Emerson). Minneapolis, IL: University of Minnesota Press.

Balogun, Julia & Gerry Johnson (2004): Organizational Restructuring and Middle Manager Sensemaking. *The Academy of Management Journal*, 47, 4, pp. 523-549.

Balogun, Julia & Gerry Johnson (2005): From Intended Strategies to Unintended Outcomes: The Impact of Change Recipient Sensemaking. *Organization Studies*, 26, 11, pp. 1573-1601.

Balser, Deborah B. & JoAnn Carmin (2009): Leadership Succession and the Emergence of an Organizational Identity Threat. *Nonprofit Management and Leadership*, 20, 2, pp. 185-201.

Barley, Stephen R. (1986): Technology as an Occasion for Structuring: Evidence from Observations of CT scanners and the Social Order of Radiology Departments. *Administrative Science Quarterly*, 31, 1, pp. 78-108.

Barley, Stephen R. (1990): Images of Imaging: Notes on Doing Longitudinal Field Work. *Organization Science*, 1, 3, pp. 220-242.

Barney, Jay B. (1986): Strategic Factor Markets: Expectations, Luck and Business Strategy. *Management Science*, 32, 10, pp. 1231-1241.

Barney, Jay B. (2001): Is the Resource-based "View" a Useful Perspective for Strategic Management Research? Yes. *The Academy of Management Review*, 26, 1, pp. 41-56.

Barrett, Michael & Geoff Walsham (1999): Electronic Trading and Work Transformation in the London Insurance Market. *Information Systems Research*, 10, 1, pp. 1-21.

Bartels, Jos, Rynke Douwes, Menno De Jong & Ad Pruyn (2006): Organizational Identification During a Merger: Determinants of Employees' Expected Identification With the New Organization. *British Journal of Management*, 17, 1, pp. 49-67.

Barry, Bruce & J. Michael Crant (2000): Dyadic Communication Relationships in Organizations: an Attribution/Expectancy Approach. *Organization Science*, 11, 6, pp. 648-664.

Bartunek, Jean M. (1984): Changing Interpretative Schemes and Organizational Restructuring: The Example of a Religious Order. *Administrative Science Quarterly*, 29, 3, pp. 355-372.

Beer, Stafford (1972): *Brain of the Firm: A Development in Management Cybernetics*. London: Penguin Press.

Beer, Stafford (1988): *Diagnosing the System for Organizations*. Chichester: Wiley.

Bell, Wendell (2003): *Foundations of Futures Studies: Human Science for a New Area* (2 Vols.). New Brunswick: Transaction Publishers.

Berends, Hans, Kees Boersma & Mathieu Weggeman (2003): The Structuration of Organizational Learning. *Human Relations*, 56, 9, pp. 1035-1056.

Berg, Per O. (1985): Organization Change as a Symbolic Transformation Process. In Peter Frost, Larry F. Moore, Meryl R. Louis, Craig C. Lundberg & Joanne Martin (eds.), *Reframing Organizational Culture*, pp. 281-299. Beverly Hills, CA: Sage Publications.

Berg, Per O. & Pasquale Gagliardi (1985): *Corporate Images: A Symbolic Perspective of the Organization-Environment Interface*. Paper presented at the SCOS Conference on Corporate Images, Antibes.

Berger, Peter L. & Thomas Luckmann (1966): *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. Harmondsworth: Penguin.

Bettis, Richard A. & C. K. Prahalad (1995): The Dominant Logic: Retrospective and Extension. *Strategic Management Journal*, 16, 1, pp. 5-14.

Bhaskar, Roy (1978): *A Realist Theory of Science*. Hassocks: Harvester Press.

Bijker, Wiebe E., Thomas P. Hughes & Trevor Pinch (eds.) (1987): *The Social Construction of Technological Systems*. Cambridge, MA: MIT Press.

Black, Laura J., Paul R. Carlile & Nelson P. Repenning (2004): A Dynamic Theory of Expertise and Occupational Boundaries in New Technology Implementation: Building on Barley's Study of CT Scanning. *Administrative Science Quarterly*, 49, 4, pp. 572-607.

Blackler, Frank (1993): Knowledge and the Theory of Organizations: Organizations as Activity Systems and the Reframing of Management. *Journal of Management Studies*, 30, 6, pp. 863-884.

Blackler, Frank (1995): Knowledge, Knowledge Work and Organizations: An Overview and Interpretation. *Organization Studies*, 16, 6, pp. 1021-1046.

Blumer, Herbert (1954): What is wrong with Social Theory? *American Sociological Review*, 19, 1, pp. 3-10.

Blumer, Herbert (1969): *Symbolic Interactionism: Perspective and Method*. Englewood-Cliffs, NJ: Prentice-Hall.

Boden, Deirdre (1994): *The Business of Talk: Organizations in Action*. Oxford: Polity Press.

Boje, David M. (1991): The Storytelling Organization: A Study of Story Performance in an Office-Supply Firm. *Administrative Science Quarterly*, 36, 1, pp. 106-126.

Boje, David. M (1995): Stories of the storytelling organization: A postmodern analysis of Disney as "Tamara-Land". *The Academy of Management Journal*, 38, 4, pp. 997-1035.

Boje, David M. (2001): *Narrative Methods for Organizational and Communication Research*. London: Sage.

Boje, David M. (2008): *Storytelling Organizations*. London: Sage.

Boland, Richard J., Ramkrishnan V. Tenkasi & Dov Te'eni (1994): Designing Information Technology to Support Distributed Cognition. *Organization Science*, 5, 3, pp. 456-475.

Boland, Richard J. (1996): Why Shared Meanings Have no Place in Structuration Theory: A Reply to Scapens and MacIntosh. *Accounting, Organizations and Society*, 21, 7-8, pp. 691-697.

Börjeson, Lena, Mattias Höjer, Karl-Henrik Dregorg, Tomas Ekvall & Göran Finnveden (2006): Scenario Types and Techniques: Towards a User's Guide. *Futures*, 38, 7, 723-739.

Bourdieu, Pierre (1972) : *Esquisse d'une théorie de la pratique, précédé de trois études d'ethnologie kabyle*. Geneve: Droz. (Engl edition: Outline of a Theory of Practice, 1977, Cambridge University Press).

Bourdieu, Pierre (1980): *Le Sens pratique*. Paris: Minuit.

Bourdieu, Pierre (1990): *The Logic of Practice* (transl. by Richard Nice). Stanford, CA: Stanford University Press.

Bourdieu, Pierre (1994): *Raisons pratique. Sur la theorie de l'action*. Paris: Seuil.

Bresnen, Mike, Anna Goussevskaia & Jacky Swan (2004): Embedding New Management Knowledge in Project-Based Organizations. *Organization Studies*, 25, 9, pp. 1535-1555.

Brocklesby, John & Steven Cummings (1996): Designing a Viable Organization Structure. *Long Range Planning*, 29, 1, pp. 49-57.

Brocklesby, John, Steven Cummings & John Davies (1995): Demystifying the Viable Systems Model as a Tool for Organizational Analysis. *Asia Pacific Journal of Operational Research*, 12, pp. 65-86.

Brown, Andrew D. (2006): A Narrative Approach to Collective Identities. *Journal of Management Studies*, 43, 4, pp. 731-753.

Brown, John S. & Paul Duguid (1991): Organizational Learning and Communities-of-Practice: Towards a Unified View of Working, Learning, and Innovation. *Organization Science*, 2, 1, pp. 40-57.

Brown, Michael E. & Dennis A. Gioia (2002): Making Things Click: Distributive Leadership in an Online Division of an Offline Organization. *The Leadership Quarterly*, 13, pp. 397-419.

Bryant, Christopher G. A. (1991): The Dialogical Model of Applied Sociology. In Christopher G. A. Bryant & David Jary (eds.), *Giddens' Theory of Structuration: A Critical Appreciation*, p. 176-200. London: Routledge.

Bryant, Christopher G. A. (1992): Sociology without Philosophy? The Case of Giddens's Structuration Theory. *Sociological Theory*, 10, 2, pp. 137-149.

Bryant, Christopher G. A. (1999): *The Uses of Giddens' Structuration Theory*. Sociological Series No. 37, Institute for Advanced Studies, Vienna.

Bryant, Christopher G. A. & David Jary (1991): Introduction: Coming to Term with Anthony Giddens. In Christopher G. A. Bryant & David Jary (eds.), *Giddens' Theory of Structuration: A Critical Appreciation*, p. 1-31. London: Routledge.

Buchen, Irving H. (1999): Creating the Future: Innovation and the Unlearning Organization. *foresight*, 1, 2, pp. 117-118.

Burgelman, Robert A. (1983): A Process Model of Internal Corporate Venturing in the Diversified Major Firm. *Administrative Science Quarterly*, 28, 2, pp. 223-244.

Burrell, Gibson & Gareth Morgan (1979): *Sociological Paradigms and Organizational Analysis*. London: Heinemann.

Campbell, Donald T. & Julian C. Stanley (1966): *Experimental and Quasi-experimental Designs for Research*. Chicago, IL: Rand McNally.
Campbell, Donald T. (1986): Science's Social System of Validity-enhancing Collective Belief Change and the Problems of the Social Sciences. In Donald W. Fiske & Richard A. Shweder (eds.), *Metatheory in Social Science: Pluralisms and Subjectivities*, pp. 108-135. Chicago, IL: University of Chicago Press.

Carter, Nacy M. (1984): Computerization as a Predominate Technology: Its Influence on the Structure of Newspaper Organizations. *The Academy of Management Journal*, 27, 2, pp. 247-270.

Cartwright, Susan & Cary L. Cooper (1993): The Role of Culture Compatibility in Successful Organizational Marriage. *The Academy of Management Executive*, 7, 2, pp. 57-70.

Cassell, Philip (ed.) (1993): *The Giddens Reader*. Stanford, CA: Stanford University Press.

Chakravarthy, Balaji S. & Roderick E. White (2002): Strategy Process: Forming, Implementing and Changing Strategies. In Andrew Pettigrew, Howard Thomas & Richard Whittington (eds.), *Handbook of Strategy and Management*, p. 182-205. London: Sage.

Chandon, William & Gerald Nadler (2000): A Breakthrough Thinking Organization. *Team Performance Management*, 7/8, pp. 122-130.

Cheney, George & Lars T. Christensen (2001): Organizational Identity at Issue: Linkages Between Internal and External Organizational Communication. In Fredric M. Jablin & Linda L. Putnam (eds.), *New Handbook of Organizational Communication: Advances in Theory, Research, and Methods*, pp. 231-269. Newbury Park, CA: Sage.

Chia, Robert (2004): Strategy-as-Practice: Reflections on the Research Agenda. *European Management Review*, 1, 1, pp. 29-34.

Chiasson, Mike & Chad Saunders (2005): Reconciling Diverse Approaches to Opportunity Research Using the Structuration Theory. *Journal of Business Venturing*, 20, 6, pp. 747-767.

Choo, Chun W. (2001): *Information Management for the Intelligent Organization: The Art of Scanning the Environment* (3rd edition). Medford, NJ: Information Today.

Chreim, Samia (2005): The Continuity-Change Duality in Narrative Texts of Organizational Identity. *Journal of Management Studies*, 42, 3, pp. 567-593.

Christensen, Clayton M. (1997): *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Boston, MA: Harvard Business School Press.

Clegg, Stewart (1994): Power Relations and the Constitution of the Resistant Subject. In John M. Jermier, David Knights & Walter R. Nord (eds.), *Resistance and Power in the Organization*, pp. 274-325. London: Routledge.

Clegg, Stewart & Cynthia Hardy (1996): Introduction: Organizations, Organization and Organizing. In Steward Clegg, Cynthia Hardy & Walter R. North (eds.), *Handbook of Organization Studies*, pp. 1-27. Thousand Oaks, CA: Sage.

Cohen, Ira J. (1986): The Status of Structuration Theory: A Reply to McLennan. *Theory, Culture and Society*, 3, 1, pp. 123-134.

Cohen, Ira J. (1989): *Structuration Theory: Anthony Giddens and the Constitution of Social Life*. New York: St. Martin's Press.

Comte, Auguste (1825): Considérations Philosophiques sur les Sciences et sur les Savants. *Producteur*, No. 7-9. Paris.

Constanzo, Laura A. (2004): Strategic foresight in a high-speed environment. *Futures*, 36, pp. 219-235.

Cook, Scott D. N. & John S. Brown (1999): Bridging Epistemologies: The Generative Dance between Organizational Knowledge and Organizational Knowing. *Organization Science*, 10, 4, pp. 381-400.

Cook, Thomas D. & Donald T. Campbell (1979): *Quasi-Experimentation: Design and Analysis Issues for Field Settings*. Boston, MA: Houghton Mifflin Company.

Cooley, Charles H. (1902): *Human Nature and the Social Order*. New York: Charles Scribner's Sons.

Cooper, Robert (2005): Peripheral Vision: Relationality. *Organization Studies*, 26, 11, pp. 1689-1710.

Coopey, John, Orla Keegan & Nick Emler (1998): Managers' Innovations and the Structuration of Organizations. *Journal of Management Studies*, 35, 3, pp. 263-284.

Cooren, Francois (1999): Applying Socio-Semiotics to Organizational Communication: A New Approach. *Management Communication Quarterly*, 13, 2, pp. 294-304.

Corley, Kevin G. & Dennis A. Gioia (2004): Identity Ambiguity and Change in the Wake of a Corporate Spin-Off. *Administrative Science Quarterly*, 29, 2, pp. 173-208

Courtney, Hugh (2001): *20/20 Foresight: Crafting Strategy in an Uncertain World*. Boston, MA: Harvard Business School Press.

Crossan, Mary M., Henry W. Lane & Roderick E. White (1999): An Organizational Learning Framework: From Intuition to Institution. *The Academy of Management Review*, 24, 3, pp. 522-537.

Cruickshank, Justin (2003): *Realism and Sociology: Anti-Foundationalism, Ontology and Social Research*. Routledge Studies in Critical Realism. London: Routledge.

Culnan, Mary J. (1983): Environmental Scanning: The Effects of Task Complexity and Source Accessibility on Information Gathering Behavior. *Decision Sciences*, 14, 2, pp. 194-206.

Currie, Mark (2011): *Postmodern Narrative Theory* (2nd edition). Houndmills: Palgrave Macmillan.

Cyert, Richard M. & James G. March (1963): *A Behavioral Theory of the Firm*. Englewood-Cliffs, NJ: Prentice Hall.

Czarniawska-Joerges, Barbara (1992): *Exploring Complex Organizations: A Cultural Perspective*. Newbury Park, CA: SAGE Publications.

Czarniawska-Joerges, Barbara (1995): Narration or Science? Collapsing the Division in Organization Studies. *Organization*, 2, 1, pp. 11-33.

Daft, Richard L. (1984): Learning the Craft of Organizational Research. *The Academy of Management Review*, 8, 4, pp. 539-546.

Daft, Richard L. & Robert H. Lengel (1986): Organizational Information Requirements, Media Richness and Structural Design. *Management Science*, 32, 5, pp. 554-571.

Daft, Richard L., Juhani Sormunen & Don Parks (1988): Chief Executive Scanning, Environmental Characteristics, and Company Performance: An Empirical Study. *Strategic Management Journal*, 9, 2, pp. 123-139.

Daft, Richard L. & Karl E. Weick (1984): Toward a Model of Organizations as Interpretation Systems. *The Academy of Management Review*, 9, 2, pp. 284-295.

D'Aveni, Richard A. (1994): *Hypercompetition – Managing the Dynamics of Strategic Maneuvering*. New York: Free Press.

Davis, Fred D. (1989): Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13, 3, pp. 319-340.

Davis, Murray S. (1971): That's interesting! Towards a Phenomenology of Sociology and a Sociology of Phenomenology. *Philosophy of the Social Sciences*, 1, pp. 309-344.

De Certeau, Michel (2002): *The Practice of Everyday Life*. Berkeley, CA: University of California Press.

Denzin, Norman K. (1978): *Sociological Methods: A Sourcebook* (2nd edition). New York: McGraw-Hill.

Derrida, Jacques (1968): *La Différence*. Conférence prononcée à la Société française de philosophie, le 27 janver 1968.

DeSanctis, Gerardine & Marhall S. Poole (1994): Capturing the Complexity in Advanced Technology Use: Adaptive Structuration Theory. *Organization Science*, 5, 2, pp. 121-147.

De Saussure, Ferdinand (1916): *Cours de Linguistique Générale* (published posthumously by Charles Bally and Albert Sechehaye). Paris: Libraire Payot & Co.

Deuten, J. Jasper & Arie Rip (2000): Narrative Infrastructure in Product Creation Processes. *Organization*, 7, 1, pp. 69-93.

Deutsch, Morton (1969): Conflicts: Productive and Destructive. *Journal of Social Issues*, 25, 1, pp. 7-41.

Deutsch, Morton (1973): *The Resolution of Conflict*. New Haven, CT: Yale University Press.

Dewar, Robert D. & Jane E. Dutton (1986): The Adoption of Radical and Incremental Innovations: An Empirical Analysis. *Management Science*, 32, 11, pp. 1422-1433.

Dewey, John (1922): *Human Nature and Conduct*. New York: Henry Holt and Company.

Doty, D. Harold & William H. Glick (1994): Typologies as a Unique Form of Theory Building: Toward Improved Understanding and Modeling. *The Academy of Management Review*, 19, 2, pp. 230-251.

Dreborg, Karl H, (2004): *Scenarios and Structural Uncertainty*. Doctoral Dissertation, Department of Infrastructure, Royal Institute of Technology, Stockholm.

Dreyfus, Hubert L. (1991): *Being-in-the-World: A Commentary on Heidegger's Being and Time, Division I*. Cambridge, MA: MIT Press.

Drucker, Peter F. (1954): *The Practice of Management*. New York: Harper & Bros.

Durkheim, Emile (1895): *Les règles de la méthode sociologique*. Paris : Felix Alcan.

Durkheim, Emile (1897): *Le suicide: Étude de sociologie*. Paris : Felix Alcan.

Dutton, Jane E., Regina M. O'Neill & Katherine A. Lawrence (2001): Moves that Matter: Issue Selling and Organizational Change. *The Academy of Management Journal*, 44, 4, pp. 716-736.

Dutton, Jane E. & Janet M. Dukerich (1991): Keeping an Eye on the Mirror: The Role of Image and Identity in Organizational Adaptation. *The Academy of Management Journal*, 34, 3, pp. 517-554.

Dutton, Jane E., Janet M. Dukerich & Celia V. Harquail (1994): Organizational Images and Member Identification. *Administrative Science Quarterly*, 39, 2, pp. 239-263.

Easterby-Smith, Mark (1997): Disciplines of Organizational Learning: Contributions and Critiques. *Human Relations*, 50, 9, pp. 1085-1113.

Eisenhardt, Kathleen M. (1989a): Making Fast Strategic Decisions in High-Velocity Environments. *The Academy of Management Journal*, 32, 3, pp. 543-576.

Eisenhardt, Kathleen M. (1989b): Building Theories from Case Study Research. *The Academy of Management Review*, 14, 4, pp. 532-550.

Eisenhardt, Kathleen M. & Jeffrey A. Martin (2000): Dynamic Capabilities: What are they? *Strategic Management Journal*, 21, 10/11, pp. 1105-1121.

Elenkov, Detelin S. (1997): Strategic Uncertainty and Environmental Scanning: The Case for Institutional Influences on Scanning Behavior. *Strategic Management Journal*, 18, 4, pp. 287-302.

Elsbach, Kimberly D. & Roderick M. Kramer (1996): Members' Responses to Organizational Identity Treats: Encountering and Countering the Business Week Rankings. *Administrative Science Quarterly*, 41, 3, pp. 442-476.

Empson, Laura (2001): Fear of Exploitation and Fear of Contamination: Impediments to Knowledge Transfer in Mergers between Professional Service Firms. *Human Relations*, 54, 7, pp. 839-862.

Empson, Laura (2004): Organizational Identity Change: Managerial Regulation and Member Identification in an Accounting Firm Acquisition. *Accounting, Organizations, and Society*, 29, 8, pp. 759-781.

Ettlie, John E., William P. Bridges & Robert D. O'Keefe (1984): Organization Strategy and Structural Differences for Radical versus Incremental Innovation. *Management Science*, 30, 6, pp. 682-695.

Espejo, Raúl & Roger Harnden (eds.) (1989): *The Viable System Model: Interpretations and Applications of Stafford Beer's VSM*. New York: Wiley.

Fahey, Liam & William R. King (1977): Environmental Scanning for Strategic Planning. *Business Horizons*, 20, 4, pp. 61-71.

Fahey, Liam, William R. King & Vadake K. Narayanan (1981): Environmental Scanning and Forecasting in Strategic Planning: The State of the Art. *Long Range Planning*, 14, 1, pp. 32-39.

Fahey, Liam & Robert M. Randall (eds.) (1998): *Learning from the Future: Competitive Foresight Scenarios*. New York: John Wiley & Sons.

Fayol, Henri (1916): *Administration Industrielle et Générale; Prévoyance, Organisation, Commandement, Coordination, Controle*. Paris: H. Dunod et H. Pinat.

Feldman, Martha S. & James G. March (1981): Information in Organizations as Signal and Symbol. *Administrative Science Quarterly*, 26, 2, pp. 171-186.

Feldman, Martha S. & Brian T. Pentland (2003): Reconceptualizing Organizational Routines as a Source of Flexibility and Change. *Administrative Science Quarterly*, 48, 1, pp. 94-118.

Feyerabend, Paul K. (1975): *Against Method: Outline of an Anarchistic Theory of Knowledge*. London: New Left Books.

Fiol, C. Marlene & Marjorie A. Lyles (1985): Organizational Learning. *The Academy of Management Review*, 10, 4, pp. 803-814.

Fischhoff, Baruch (1975): Hindsight ≠ Foresight: The Effect of Outcome Knowledge on Judgment under Uncertainty. *Journal of Experimental Psychology: Human Perception and Performance*, 1, pp. 288-299.

Fisher, Walter R. (1984): Narration as a Human Communication Paradigm: The Case of Public Moral Argument. *Communication Monographs*, 51, pp. 1-22.

Fisher, Walter R. (1985): The Narrative Paradigm: An Elaboration. *Communication Monographs*, 52, pp. 347-367.

Forrester, Jay W. (1961): *Industrial Dynamics*. Portland, OR: Productivity Press.

Foucault, Michel (1977): *Discipline and Punish: The Birth of the Prison*. New York: Vintage.

Fulk, Janet (1993): Social Construction of Communication Technology. *The Academy of Management Journal*, 36, 5, pp. 921-950.

Fuller, Ted & Krista Loogma (2009): Constructing Futures: A Social Constructionist Perspective on Foresight Methodology. *Futures*, 41, 2, pp. 71-79.

Galbraith, Jay R. (1974): Organization design: An information processing view. *Interfaces*, 4, 3, pp. 28-36.

Garfinkel, Harold (1967): *Studies in Ethnomethodology*. Englewood Cliffs, NJ: Pentice Hall.

Garfinkel, Harold (2002): *Ethnomethodology's Program: Working Out Durkheim's Aphorism* (edited and introduced by Anne Warfield Rawls). Lanham, MD: Rowman & Littlefield.

Garvin, David A. (1993): Building a Learning Organization. *Harvard Business Review*, 71, 4, pp. 78-92.

Geertz, Clifford (1973): Thick Description: Toward an Interpretive Theory of Culture. In *The Interpretation of Cultures: Selected Essays*, pp. 3-30. New York: Basic Books.

Gherardi, Silvia & Davide Nicolini (2000): To Transfer is to transform: The Circulation of Safety Knowledge. *Organization*, 7, 2, pp. 329-348.

Giddens, Anthony (1976): *New Rules of Sociological Method*. London: Hutchinson.

Giddens, Anthony (1979): *Central Problems in Social Theory: Action, Structure and Contradictions in Social Analysis*. London: Macmillan.

Giddens, Anthony (1981): *A Contemporary Critique of Historical Materialism* (Volume 1: Power, Poverty and the State). London: Macmillan.

Giddens, Anthony (1984): *The Constitution of Society – Outline of the Theory of Structuration*. Cambridge, UK: Polity Press.

Giddens, Anthony (1989): A Reply to my Critics. In David Held & John B. Thompson, *Social Theory of Modern Societies: Anthony Giddens and his Critics*, pp. 249-301. Cambridge: Cambridge University Press.

Giddens, Anthony (1990): *The Consequences of Modernity*. Cambridge: Polity Press.

Giddens, Anthony (1991a): Structuration Theory: Past, Present and Future. In Christopher G. A. Bryant & David Jary (eds.), *Giddens' Theory of Structuration: A Critical Appreciation*, pp. 201-221. London: Routledge.

Giddens, Anthony (1991b): *Modernity and Self-Identity*. Cambridge: Polity Press.

Gioia, Dennis A. (1998): From Individual to Organizational Identity. In David A. Whetten & Paul Godfrey (eds.), *Identity in Organizations: Developing Theory through Conversations*, pp. 17-31. Thousand Oaks, CA: Sage Publications.

Gioia, Dennis A. & Kumar Chittipeddi (1991): Sensemaking and Sensegiving in Strategic Change Initiation. *Strategic Management Journal*, 12, 6, pp. 433-448.

Gioia, Dennis A. & Evelyn Pitré (1990): Multiparadigm Perspectives on Theory Building. *The Academy of Management Review*, 15, 4, pp. 584-602.

Gioia, Dennis A., Majken Schultz & Kevin G. Corley (2000): Organizational Identity, Image, and Adaptive Instability. *The Academy of Management Journal*, 25, 1, pp. 63-81.

Gioia, Dennis A. & James B. Thomas (1996): Identity, Image, and Issue Interpretation: Sensemaking During Strategic Change in Academia. *Administrative Science Quarterly*, 41, 3, pp. 370-403.

Gjesme, Torgrim (1983): Introduction: An Inquiry into the Concept of Future Orientation. *International Journal of Psychology*, 18, 1, pp. 347-350.

Glaser, Barney G. & Anselm L. Strauss (1967): *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine De Gruyter.

Glynn, Mary Ann (1996): Innovative Genius: A Framework for Relating Individual and Organizational Intelligences to Innovation. *The Academy of Management Review*, 21, 4, pp. 1081-1111.

Goffman, Erving (1959): *The Presentation of Self in Everyday Life*. New York: Doubleday.

Goffman, Erving (1981): *Forms of Talk*. Philadelphia, PA: University of Pennsylvania Press.

Gold, Raymond L. (1958): Roles in Sociological Field Observations. *Social Forces*, 36, 3, pp. 217-223.

Goodall, Keith & John Roberts (2003): Repairing Managerial Knowledgeability over Distance. *Organization Studies*, 24, 7, pp. 1153-1175.

Gopal, Abhijit, Robert P. Bostrom & Wynne W. Chin (1992): Applying Adaptive Structuration Theory to Investigate the Process of Group Support Systems Use. *Journal of Management Information Systems*, 9, 3, pp. 45-69.

Grabher, Gernot (1994): *Lob der Verschwendung: Redundanz in der Regionalentwicklung: Ein sozioökonomisches Plädoyer*. Berlin: Sigma.

Granovetter, Mark S. (1973): The Strength of Weak Ties. *The American Journal of Sociology*, 78, 6, pp. 1360-1380.

Greene, Jennifer C., Valerie J. Caracelli & Wendy F. Graham (1989): Toward a Conceptual Framework for Mixed-Method Evaluation Designs. *Educational Evaluation and Policy Analysis*, 11, 3, pp. 255-274.

Gregson, Nicky (1989): On the (Ir)relevance of Structuration Theory to Empirical Research. In David Held & John B. Thompson, *Social Theory of Modern Societies: Anthony Giddens and his Critics*, pp. 235-248. Cambridge: Cambridge University Press.

Grice, H. P. (1957): Meaning. *The Philosophical Review*, 66, 3, pp. 377-388.

Grice, H. P. (1969): Utterer's Meaning and Intention. *The Philosophical Review*, 78, 2, pp. 147-177.

Guetzkow, Harold & John Gyr (1954): An Analysis of Conflict in Decision-Making Groups. *Human Relations*, 7, 3, pp. 367-381.

Habermas, Jürgen (1981): *Theorie des kommunikativen Handelns* (2 Bde). Frankfurt a.M.: Suhrkamp.

Hambrick, Donald C. (1981): Specialization of Environmental Scanning Activities among Upper Level Executives. *Journal of Management Studies*, 18, 3, 299-320.

Hambrick, Donald C. (1982): Environmental Scanning and Organizational Strategy. *Strategic Management Journal*, 3, 2, pp. 159-174.

Hamel, Gary & C. K. Prahalad (1994): *Competing for the Future*. Boston, MA: Harvard Business School Press.

Hammersley, Martyn (1992): Ethnography and Realism. In Martyn Hammersly, *What is Wrong with Ethnography? – Methodological Explorations*, pp. 43-56. London: Routledge.

Hargadon, Andrew & Angelo Fanelli (2002): Action and Possibility: Reconciling Dual Perspectives of Knowledge in Organizations. *Organization Science*, 13, 3, pp. 290-302.

Hassard, John (1988): Overcoming Hermeticism in Organization Theory: An Alternative to Paradigm Incommensurability. *Human Relations*, 41, 3, pp. 247-259.

Hassard, John (1991): Multiple Paradigms and Organizational Analysis: A Case Study. *Organization Studies*, 12, 2, pp. 279-299.

Harzing, Anne-Will (2010): *Journal Quality List* (37th edition, published on 27 May 2010). Web: http://www.harzing.com/jql.htm (retrieved on 16 November 2010)

Hayward, Peter C. (2005): *From Individual to Social Foresight*. Ph.D. Thesis. Melbourne: Swinburne University of Technology.

Heidegger, Martin (1927): Sein und Zeit. In Edmund Husserl (ed.), *Jahrbuch für Philosophie und phänomenologische Forschung*, Band 8. Tübingen: Max Niemeyer.

Held, David & John B. Thompson (1989): *Social Theory of Modern Societies: Anthony Giddens and his Critics*. Cambridge: Cambridge University Press.

Helfat, Constance E. & Margareth A. Peteraf (2003): The dynamic resource-based view: Capability lifecycles. *Strategic Management Journal*, 24, 10, pp. 997-1010.

Hendry, John (2000): Strategic Decision Making, Discourse, and Strategy as Social Practice. *Journal of Management Studies*, 37, pp. 955-977.

Hendry, John & David Seidl (2003): The Structure and Significance of Strategic Episodes: Social Systems Theory and the Routine Practices of Strategic Change. *Journal of Management Studies*, 40, 1, pp. 175-196.

Heracleous, Loizos (2006): A Tale of Three Discourses: The Dominant, the Strategic and the Marginalized. *Journal of Management Studies*, 43, 5, pp. 1059-1087.

Heracleous, Loizos & Michael Barrett (2001): Organizational Change as Discourse: Communicative Actions and Deep Structures in the Context of Information Technology Implementation. *The Academy of Management Journal*, 44, 4, pp. 755-778.

Heracleous, Loizos & John Hendry (2000): Discourse and the Study of Organization: Toward a Structurational Perspective. *Human Relations*, 53, 10, pp. 1251-1286.

Heracleous, Loizos & Robert J. Marshak (2004): Conceptualizing organizational discourse as situated symbolic action. *Human Relations*, 57, 10, pp. 1285-1312.

Hesse-Biber, Sharlene N. & Patricia Leavy (2011): *The Practice of Qualitative Research* (2nd edition). Thousand Oaks, CA: Sage Publications.

Hiltz, Starr R. & Kenneth Johnson (1990): User Satisfaction with Computer-Mediated Communication Systems. *Management Science*, 36, 6, pp. 739-764.

Holmqvist, Mikael (1999): Learning in Imaginary Organizations: Creating Interorganizational Knowledge. *Journal of Organizational Change Management*, 12, 5, pp. 419-438.

Horne, J. H. & Tom Lupton (1965): The Work Activities of Middle Managers – An Explorative Study. *Journal of Management Studies*, 2, 1, pp. 14-33.

Howard-Grenville, Jennifer A. (2005): The Persistence of Flexible Organizational Routines: The Role of Agency and Organizational Context. *Organization Science*, 16, 6, pp. 618-636.

Huber, George P. (1990): A Theory of the Effects of Advanced Information Technologies on Organizational Design, Intelligence, and Decision Making. *The Academy of Management Review*, 15, 1, pp. 47-71.

Huber, George P. (1991): Organizational Learning: The Contributing Processes and the Literatures. *Organization Science*, 2, 1, pp. 88-115.

Humphreys, Michael & Andrew D. Brown (2002): Narratives of Organizational Identity: A Case Study of Hegemony and Resistance. *Organization Studies*, 23, 3, pp. 421-447.

Hunt, Raymond G. & G. Lawrence Sanders (1989): Supporting Intelligent Organizations: Problem Solving and Learning. *Proceedings of the Twenty-Second Annual Hawaii International Conference on Decision Support and Knowledge Based Systems Track*, Vol. III, p.476-482.

Husserl, Edmund (1901): *Logische Untersuchungen – Zweiter Theil: Untersuchungen zur Phänomenologie und Theorie der Erkenntnis*. Halle a. d. Saale: Max Niemeyer.

Huy, Quy N. (1999): Emotional Capability, Emotional Intelligence, and Radical Change. *The Academy of Management Review*, 24, 2, pp. 325-345.

Ilmola, Leena & Osmo Kuusi (2006): Filters of Weak Signals hinder Foresight: Monitoring Weak Signals Efficiently in Corporate Decision-making. *Futures*, 38, 8, pp. 908-924.

Ingvar, David (1985): Memories of the Future: An Essay on the Temporal Organization of Conscious Awareness. *Human Neurobiology*, 4, pp. 127-136.

Isenberg, Daniel J. (1986): The Structure and Process of Understanding: Implications for Managerial Action. In Henry P. Sims & Dennis A. Gioia (eds.), *The Thinking Organization*, pp. 238-262. San Francisco, CA: Jossey-Bass.

Jain, Subhash C. (1984): Environmental Scanning in US Corporations. *Long Range Planning*, 17, 2, pp. 117-128.

Jarzabkowski, Paula (2000): *Putting Strategy into Practice: Top Management Teams in Action in Three UK Universities*. Ph.D. Thesis. Coventry, UK: University of Warwick.

Jarzabkowski, Paula (2003): Strategic Practices: An Activity Theory Perspective on Continuity and Change. *Journal of Management Studies*, 40, 1, pp. 23-55.

Jarzabkowski, Paula (2004): Strategy as Practice: Recursiveness, Adaptation, and Practices in Use. *Organization Studies*, 25, pp. 529-560.

Jarzabkowski, Paula (2005): *Strategy as Practice: An Activity-Based Approach*. Thousand Oaks, CA: SAGE Publications.

Jarzabkowski, Paula, Julia Balogun & David Seidl (2007): Strategizing: The Challenges of a Practice Perspective. *Human Relations*, 60, 1, pp. 5-27.

Jarzabkowski, Paula & Andreas P. Spee (2009): Strategy-as-Practice: A Review and Future Directions for the Field. *International Journal of Management Reviews*, 11, 1, pp. 69-95.

Jehn, Karen A. (1992): *The Impact of Intergroup Conflict on Effectiveness: A Multimethod Examination of the Benefits and Detriments of Conflict*. Unpublished doctoral thesis. Evanston, IL: Northwestern University.

Jehn, Karen A. (1997): Affective and Cognitive Conflict in Work Groups: Increasing Performance through Value-based Intragroup Conflict. In Carsten de Dreu & Evert van de Vliert (eds.), *Using Conflict in Organizations*, pp. 87-100. Thousand Oaks, CA: Sage Publications.

Jermier, John M., David Knights & Walter R. Nord (eds.) (1994): *Resistance and Power in Organizations*. London: Routledge.

Johnson, Gerry, Ann Langley, Leif Melin & Richard Whittington (2007): *The Practice of Strategy: Research Directions and Resources*. Cambridge: Cambridge University Press.

Johnston, Ron (2001): Foresight – Refining the Process. *International Journal of Technology Management*, 21, 7/8, pp. 711-725.

Jonassen, David H. & Susan M. Land (eds.) (2000): *Theoretical Foundations of Learning Environments*. Mahwah, NJ: Lawrence Erlbaum Associates.

Jones, Matthew R. & Helena Karsten (2008): Giddens's Structuration Theory and Information Systems Research. *MIS Quarterly*, 32, 1, pp. 127-157.

Junker, Buford H. (1952): Some Suggestions for the Design of Field Work Learning Experiences. In Everett C. Hughes, Buford H. Junker, Ray L. Gold & Dorothy Kittel (eds.), *Cases on Field Work*, Part III-A. Chicago, IL: University of Chicago Press.

Katz, Daniel & Robert L. Kahn (1966): *The Social Psychology of Organizations*. New York: Wiley.

Kilminster, Richard (1991): Structuration Theory as a World-view. In Christopher G.A. Bryant & David Jary (eds.), *Giddens Theory of Structuration: A Critical Appreciation*, pp. 74-115. London & New York: Routledge.

Kim, Daniel H. (1993): The Link between Individual and Organizational Learning. *Sloan Management Review*, 35, 1, pp. 37-50.

Kostera, Monika (2007): *Organizational Ethnography: Methods and Inspirations*. Lund: Studentlitteratur.

Kreps, Garry L. (1990): Stories as Repositories of Organizational Intelligence: Implications for Organizational Development. In J. A. Anderson (Ed.), *Communication Yearbook*, 13, pp. 191-202. Newbury Park, California: Sage Publications.

Kuhn, Thomas (1962): *The Structure of Scientific Revolutions*. Chicago, IL: The University of Chicago Press.

Lakatos, Imre (1980). *The Methodology of Scientific Research Programmes: Philosophical Papers, Volume 1* (edited by John Worrall & Gregory Currie). Cambridge: Cambridge University Press.

Langley, Ann (1999): Strategies for Theorizing from Process Data. *The Academy of Management Review*, 24, 4, pp. 691-711.

Laudan, Larry (1998): Underdetermination. In Edward Craig (ed.), *Routledge Encyclopedia of Philosophy*. London: Routledge.

Lave, Jean (1988): *Cognition in Practice: Mind, Mathematics, and Culture in Everyday Life*. Cambridge, UK: Cambridge University Press.

Lawrence, Paul R. & Jay W. Lorsch (1967): *Organization and Environment*. Boston: Harvard University Press.

Lawrence, Paul R. & Davis Dyer (1983): *Renewing American Industry*. New York: Free Press.

LeCompte, Margaret D. & Jean J. Schensul (1999): *Designing & Conducting Ethnographic Research*. Ethnographer's Toolkit Series, Vol. 1. Walnut Creek, CA: AltaMira Press.

Leidner, Dorothy E. & Joyce J. Elam (1995): The Impact of Executive Information Systems on Organizational Design, Intelligence, and Decision Making. *Organization Science*, 6, 6, pp. 645-664.

Leonard-Barton, Dorothy (1992): Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development. *Strategic Management Journal*, 13, 1, pp. 111-125.

Levitt, Barbara & James G. March (1988): Organizational Learning. *Annual Review of Sociology*, 14, pp. 319-340.

Lewin, Kurt (1951): *Field Theory in Social Science*. New York: Harper & Row.

Liebowitz, Jay (2000): *Building Organizational Intelligence: A Knowledge Management Primer*. Boca Raton, FL: CRC Press.

Lindblom, Charles E. (1959): The Science of Muddling Through. *Public Administration Review*, 19, pp. 79-99.

Llewellyn, Nick (2004): In Search of Modernization: The Negotiation of Social Identity in Organizational Reform. *Organization Studies*, 25, 6, pp. 947-968.

Louis, Meryl R. (1980): Surprise and Sense Making: What Newcomers Experience in Entering Unfamiliar Organizational Settings. *Administrative Science Quarterly*, 25, 2, pp. 226-251.

Lovins, Amory B. (1976): Energy Strategy: The Road Not Taken? *Foreign Affairs*, 55, pp. 63-98.

Luhman, Niklas (1986): The Autopoiesis of Social Systems. In Felix Geyer & Johannes van der Zouwen (eds.), *Sociocybernetic Paradoxes: Observation, Control and Evolution of Self-steering Systems*. London: Thousand Oaks.

Luhmann, Niklas (1990): Anfang und Ende: Probleme einer Unterscheidung. In Niklas Luhmann & Karl E. Schnorr (eds.), *Zwischen Anfang und Ende: Fragen an die Pädagogik*, pp. 11-23. Frankfurt a. M.: Suhrkamp.

Lukes, Steven (1974): *Power – A Radical View*. London: Macmillan.

Lundberg, Craig C. (1976): Hypothesis Creation in Organizational Behavior Research. *The Academy of Management Review*, 1, 2, pp. 5-12.

MacIntosh, Norman B. & Robert W. Scapens (1990): Structuration Theory in Management Accounting. *Accounting, Organizations and Society*, 15, pp. 455-477.

MacKay, R. Bradley & Peter McKiernan (2004): The Role of Hindsight in Foresight: Refining Strategic Reasoning. *Futures*, 36, 2, pp. 161-179.

MacKay, R. Bradley, S. Masrani & Peter McKiernan (2006): Strategy Options and Cognitive Freezing: The Case of the Dundee Jute Industry in Scottland. *Futures*, 38, pp. 925-941.

MacMillan, Ian & Patricia E. Jones (1986): *Strategy Formulation: Power and Politics*. St. Paul: West.

Mahoney, James (2000): Path Dependence in Historical Sociology. *Theory and Society*, 29, 4, pp. 507-548.

Mahoney, Joseph T. & J. Rajendran Pandian (1992): The Resource-based View within the Conversation of Strategic Management. *Strategic Management Journal*, 13, 5, pp. 363-380.

Major, Edward, David Asch & Martyn Cordey-Hayes (2001): Foresight as a Core Competence. *Futures*, 33, 2, pp. 91-107.

March, James G. (1991): Exploration and Exploitation in Organizational Learning. *Organization Science*, 2, 1, pp. 71-87.

March, James G. (1999): *The Pursuit of Organizational Intelligence*. Oxford: Blackwell.

March, James G. (1991): Exploration and Exploitation in Organizational Learning. *Organization Science*, 2, 1, pp. 71-87.

March, James G. & Johan P. Olsen (1976): *Ambiguity and Choice in Organizations*. Bergen, Norway: Universitetsforlaget.

Marx, Karl (1852): Der achtzehnte Brumaire des Louis Bonarparte. In Karl Marx & Friedrich Engels, *Werke*, Vol. 8., pp. 11-207. Berlin: Dietz Verlag.

Mason, Richard O. & Ian I. Mitroff (1981): *Challenging Strategic Planning Assumptions*. New York: Wiley.

Maturana, Humberto R. & Francisco J. Varela (1980): *Autopoiesis and Cognition: the Realization of the Living*. Dordrecht: Reidel Publishing.

McGill, Michael E. & John W. Slocum (1994): *The Smarter Organization: How to Build a Business that Learns and Adapts to Marketplace Needs*. New York: John Wiley & Sons.

McGrath, Rita G. & Ian C. MacMillan (2000): *Entrepreneurial Mindsets*. Boston: Harvard Business School Press.

McLennan, Gregor (1984): Critical or Positive Theory? A Comment on the Status of Anthony Giddens' Social Theory. *Theory, Culture and Society*, 2, 1, pp. 123-129.

McLennan, Gregor (1988): Structuration Theory and Post-Empiricist Philosophy: A Rejoinder. *Theory, Culture and Society*, 5, 1, pp. 101-109.

McMaster, Michael D. (1996): *The Intelligence Advantage: Organizing for Complexity*. Newton, MA: Butterworth-Heinemann.

Mead, George H. (1934): *Mind, Self and Society* (edited by Charles W. Morris). Chicago, IL: University of Chicago Press.

Mendonça, Sandro, Miguel Pina e Cunha, Jari Kaivo-oja & Frank Ruff (2004): Wild cards, weak signals and organizational improvisation. *Futures*, 36, 2, pp. 201-218.

Mengis, Jeanne & Martin J. Eppler (2008): Understanding and Managing Conversations from a Knowledge Perspective: An Analysis of the Roles and Rules of Face-to-Face Conversations in Organizations. *Organization Studies*, 29, 10, pp. 1287-1313.

Merton, Robert K. (1957): *Social Theory and Social Structure*. New York: Free Press of Glencoe.

Merton, Robert K. (1967): *On Theoretical Sociology: Five Essays, Old and New*. New York: The Free Press.

Mestrovic, Stjepan G. (1998): *Anthony Giddens: The Last Modernist*. London: Routledge.

Miles, Raymond E. & Charles C. Snow (1978): *Organizational Strategy, Structure and Process*. New York: McGraw-Hill.

Miller, Carolyn R. (1984): Genre as Social Action. *Quarterly Journal of Speech*, 70, pp. 151-167.

Mills, C. Wright (1959): *The Sociological Imagination*. New York: Oxford University Press.

Mintzberg, Henry (1970): Structured Observation as a Method to Study Managerial Work. *Journal of Management Studies*, 7, 1, pp. 87-104.

Mintzberg, Henry (1971): Managerial Work: Analysis from Observation. *Administrative Science Quarterly*, 25, 2, pp. 268-299.

Mintzberg, Henry (1973): *The Nature of Managerial Work*. New York: Harper & Row.

Mintzberg, Henry (1978): Patterns in Strategy Formation. *Management Science*, 24, 9, pp. 934-948.

Mintzberg, Henry (1979): *The Structuring of Organizations*. Englewood-Cliffs, NJ: Prentice Hall.

Mintzberg, Henry (1981): What is Planning Anyway? *Strategic Management Journal*, 2, 3, pp. 319-324.

Mintzberg, Henry (1983): *Structure in Fives: Designing Effective Organizations*. Englewood-Cliffs, NJ: Prentice Hall.

Mintzberg, Henry (1987): Crafting Strategy. *Harvard Business Review*, 65, 4, pp. 66-75.

Mintzberg, Henry & James A. Waters (1985): Of Strategies, Deliberate and Emergent. *Strategic Management Journal*, 6, 3, pp. 257-272.

Mohr, Lawrence B. (1982): *Explaining Organizational Behavior*. San Francisco, CA: Jossey-Bass.

Morgan, Gareth (1980): Paradigms, Metaphors, and Puzzle Solving in Organization Theory. *Administrative Science Quarterly*, 25, 4, pp. 605-622.

Morgan, Gareth (1986): *Images of Organization*. Thousand Oaks, CA: Sage.

Müller, Adrian (2008): *Strategic Foresight: Prozesse strategischer Trend- und Zukunftsforschung in Unternehmen*. Doctoral thesis, No. 3521. University of St. Gallen.

Narayanan, V. K. & Liam Fahey (2004): Invention and Navigation as Contrasting Metaphors of the Pathways to the Future. In Tsoukas, Haridimos & Jill Shepherd (eds.), *Managing the Future: Foresight in the Knowledge Economy*. Malden, MA: Blackwell Publishing.

Newton, Tim (1996): Postmodernism and Action. *Organization*, 3, 1, pp. 7-29.

Neyland, Daniel (2008): *Organizational Ethnography*. Thousand Oaks, CA: Sage Publications.

Nicolini, Davide, Silvia Gherardi & Dvora Yanow (eds.) (2003): *Knowing in Organizations: A Practice-Based Approach*. Armonk, NY: Sharpe.

Nicolini, Davide & Martin B. Meznar (1995): The Social Construction of Organizational Learning: Conceptual and Practical Issues in the Field. *Human Relations*, 48, 7, pp. 727-746.

Nonaka, Ikujiro (1994): A Dynamic Theory of Organizational Knowledge Creation. *Organization Science*, 5, 1, pp. 14-37.

Nonaka, Ikujiro & Hirotaka Takeuchi (1995): *The Knowledge Creating Company*. Oxford, UK: Oxford University Press.

Orlikowski, Wanda J. (1992): The Duality of Technology: Rethinking the Concept of Technology in Organizations. *Organization Science*, 3, pp. 398-427.

Orlikowski, Wanda J. (1993): CASE Tools as Organizational Change: Investigating Increment. *MIS Quarterly*, 17, 3, pp. 309-340.

Orlikowski, Wanda J. (1996): Improvising Organizational Transformation over Time: A Situated Change Perspective. *Information Systems Research*, 7, 1, pp. 63-92.

Orlikowski, Wanda J. (2002): Knowing in Practice: Enacting a Collective Capability in Distributed Organizing. *Organization Science*, 13, 3, pp. 249-273.

Orlikowski, Wanda J. & JoAnne Yates (1994): Genre Repertoire: The Structuring of Communicative Practices in Organizations. *Administrative Science Quarterly*, 39, 4, pp. 541-574.

Orlikowski, Wanda J., JoAnne Yates, Kazuo Okamura & Masayo Fujimoto (1995): Shaping Electronic Communication: The Metastructuring of Technology in the Context of Use. *Organization Science*, 6, 4, pp. 423-444.

Parker, John (2000): *Structuration*. Buckingham: Open University Press.

Parsons, Talcott (1937): *The Structure of Social Action*. New York: McGraw-Hill.

Parsons, Talcott (1951): *The Social System*. New York: The Free Press.

Pelled, Lisa H., Kathleen M. Eisenhardt & Katherine R. Xin (1999): Exploring the Black Box: An Analysis of Work Group Diversity, Conflict, and Performance. *Administrative Science Quarterly*, 44, 1, pp. 1-28.

Peteraf, Margaret A. (1993): The Cornerstones of Competitive Advantage: A Resource-Based View. *Strategic Management Journal*, 14, 3, pp. 179-191.

Pettigrew, Andrew M. (1985): *The Awaking Giant: Continuity and Change in ICI*. Oxford: Blackwell.

Pfeffer, Jeffrey & Gerald R. Salancik (1978): *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper & Row.

Pierce, Charles S. (1934): *Collected Papers, Vol. V. Pragmatism and Pragmaticism* (edited by Charles Hartshorne and Paul Weiss). Cambridge, MA: Harvard University Press.

Pina e Cunha, M., Palma, P. & Guimarães da Costa, N. (2006): Fear of foresight: knowledge and ignorance in organizational foresight. *Futures*, 38, pp. 942-955.

Pondy, Louis R. (1967): Organizational Conflict: Concepts and Models. Administrative Science Quarterly, 12, 2, pp. 296-320.

Pondy, Louis R. (1969): Varieties of Organizational Conflict. *Administrative Science Quarterly*, 14, 4, pp. 499-505.

Popper, Karl R. (1963): *Conjectures and Refutations: The Growth of Scientific Knowledge*. London: Routledge & Kegan Paul.

Porter, Michael (1979): How Competitive Forces Shape Strategy. *Harvard Business Review*, 57, March/April, pp. 137-145.

Porter, Michael E. (1980): *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press.

Porter, Michael E. (1985): *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.

Pozzebon, Marlei (2004): The Influence of a Structurationist View on Strategic Management Research. *Journal of Management Studies*, 41, 2, pp. 247-272.

Pozzebon, Marlei & Alain Pinsonneault (2005): Challenges in Conducting Empirical Work Using Structuration Theory: Learning from IT Research. *Organization Studies*, 26, 9, pp. 1353-1376.

Prahalad, C. K. & Gary Hamel (1990): The Core Competence of the Corporation. *Harvard Business Review*, 68, 3, pp. 79-91.

Priem, Richard L. & Kenneth H. Price (1991): Process and Outcome Expectations for the Dialectical Inquiry, Devil's Advocacy, and Consensus Techniques of Strategic Decision Making. *Group and Organization Studies*, 16, pp. 206-225.

Quine, Willard V. O. (1960): *Word and Object*. Massachusetts, MA: MIT Press.

Ranson, Stewart, Bob Hinings & Royston Greenwood (1980): The Structuring of Organizational Structures. *Administrative Science Quarterly*, 25, 1, pp. 1-17.

Ravasi, Davide & Majken Schultz (2006): Responding to Organizational Identity Threats: Exploring the Role of Organizational Culture. *The Academy of Management Journal*, 49, 3, pp. 433-458.

Rawls, Anne (2002): Editor's Introduction. In Harold Garfinkel, *Ethnomethodology's Program: Working Out Durkheim's Aphorism*, pp. 1-64. Lanham, MD: Rowman & Littlefield.

Reed, Michael I. (1992): *The Sociology of Organizations: Themes, Perspectives and Prospects*. Hertfordshire: Harvester Wheatsheaf.

Reed, Michael I. (1997): In Praise of Duality and Dualism: Rethinking Agency and Structure in Organizational Analysis. *Organization Studies*, 18, 1, pp. 21-42.

Reid, David M. & Stelios C. Zyglidopoulos (2004): Causes and Consequences of the Lack of Strategic Foresight in the Decision of Multinational Enterprises to Enter China. *Futures*, 36, 2, pp. 237-252.

Resnick, Lauren B., John M. Levine & Stephanie D. Teasley (eds.) (1991): *Perspectives on Socially Shared Cognition*. Washington, DC: American Psychological Association.

Rhodes, Carl (2000): 'Doing' Knowledge at Work: Dialogue, Monologue and Power in Organizational Learning. In John Garrick & Carl Rhodes (eds.), *Research and Knowledge at Work: Perspectives, Case-studies and Innovative Strategies*, pp. 217-231. London: Routledge.

Rich, Philip (1992): The Organizational Taxonomy: Definition and Design. *The Academy of Management Review*, 17, 4, pp. 758-781.

Roberts, John & Robert W. Scapens (1985): Accounting Systems and Systems of Accountability: Understanding Accounting Practices in their Organizational Contexts. *Accounting, Organizations and Society*, 10, 4, pp. 443-456.

Robichaud, Daniel, Hélène Giroux & James R. Taylor (2004): The Metaconversation: The Recursive Property of Language as a Key to Organizing. *The Academy of Management Review*, 29, 4, pp. 617-634.

Robinson, John B. (1982): Energy Backcasting: A Proposed Method of Policy Analysis. *Energy Policy*, 10, 4, pp. 337-344.

Rose, Jeremy (1998): Evaluating the Contribution of Structuration Theory to the Information Systems Discipline. In *Proceedings of the European Conference on Information Systems* (edited by W.R.J. Baets). Euro-Arab Management School, Granada.

Rüegg-Stürm, Johannes, Simon Grand & Widar von Arx (2010): Constructivist Epistemologies in Strategy as Practice Research. In Damon Golsorkhi, Linda Rouleau, David Seidl & Eero Vaara (eds.), *Cambridge Handbook of Strategy as Practice*, pp. 63-78. Cambridge, UK: Cambridge University Press.

Rumelt, Richard (1984): Toward a Strategic Theory of the Firm. In Robert Lamb (ed.), *Competitive Strategic Management*. Englewood Cliffs, NJ: Prentice-Hall.

Runkel, Philip J. & Margaret Runkel (1984): *A Guide to Usage for Writers and Students in the Social Sciences*. Totowa, NJ: Rowman and Allanheld.

Sacks, Harvey, Emanuel A Schegloff & Gail Jefferson (1974): A Simplest Systematics for the Organization of Turn-Taking for Conversation. *Language*, 50, 4, pp. 696-735.

Samra-Fredericks, Dalvir (2003): Strategizing as Lived Experience and Strategists' Everyday Efforts to Shape Strategic Direction. *Journal of Management Studies*, 40, 1, pp. 141-174.

Sanday, Peggy R. (1979): The Ethnographic Paradigm(s). *Administrative Science Quarterly*, 24, 4, pp. 527-538.

Sarason, Yolanda. (1995): A Model of Organizational Transformation: The Incorporation of Organizational Identity into a Structuration Theory Framework. *The Academy of Management Journal, Best Paper Proceedings*, pp. 47-51.

Sarason, Yolanda, Tom Dean & Jesse F. Dillard (2006): Entrepreneurship as the Nexus of Individual and Opportunity: A Structuration View. *Journal of Business Venturing*, 21, 3, pp. 286-305.

Scapens, Robert W. & Norman B. MacIntosh (1996): Structure and Agency in Management Accounting Research: A Response to Boland's Interpretive Act. *Accounting, Organizations and Society*, 21, 7-8, pp. 675-690.

Schatzki, Theodore R., Karin Knorr Cetina & Eike von Savigny (eds.) (2001): *The Practice Turn in Contemporary Theory*. London: Routledge.

Schegloff, Emanuel A. (1991): Conversation Analysis and Socially Shared Cognition. In Lauren B. Resnick, John M. Levine & Stephanie D. Teasley (eds.),

Perspectives on Socially Shared Cognition, pp. 150–171. Washington, DC: American Psychological Association.

Schegloff, Emanuel A. (2007): *Sequence Organization in Interaction: A Primer in Conversation Analysis* (Volume 1). New York: Cambridge University Press.

Schensul, Stephen L., Jean J. Schensul & Margaret D. LeCompte (1999): *Essential Ethnographic Methods*. Ethnographer's Toolkit Series, Vol. 2. Walnut Creek, CA: AltaMira Press.

Schlinger, Henry D. (2003). The Myth of Intelligence. *The Psychological Record*, 53, pp. 15-32.

Schütz, Alfred (1932): *Der sinnhafte Aufbau der sozialen Welt: Eine Einleitung in die verstehende Soziologie*. Wien: Springer.

Schütz, Alfred (1971). *Collected Papers. Volume I:* Phaenomenologica, Volume I. The Hague: Nijhoff.

Schütz, Alfred (1976): *Collected Papers. Volume II: Studies in Social Theory* (edited by Arvid Brodersen; 4th printing). Phenomenologica, Vol. 15. The Hague: Martinus Nijhoff.

Schütz, Alfred & Thomas Luckmann (1980): *The Structures of the Life-World* (Volume 1). London: Heinemann.

Schwandt, David R. & Margaret Gorman (2004): Foresight or Foreseeing? A Social Action Explanation of Complex Collective Knowing. In Haridimos Tsoukas & Jill Shepherd, *Managing the Future: Foresight in the Knowledge Economy*, pp. 77-97. Malden, MA: Blackwell Publishing.

Schwaninger, Markus (2001): Intelligent Organizations: An Integrative Framework. *Systems Research and Behavioral Science*, 18, pp. 137-158.

Schwaninger, Markus (2003): A Cybernetic Model to Enhance Organizational Intelligence. *Systems Analysis Modelling Simulation*, 43, 1, pp. 53-65.

Schwaninger, Markus (2006): *Intelligent Organizations: Powerful Models for Systemic Management*. Berlin: Springer.

Schweiger, David M. & William R. Sandberg (1989): The Utilization of Individual Capabilities in Group Approaches to Strategic Decision-Making. *Strategic Management Journal*, 10, 1, pp. 31-43.

Schweiger, David M., William R. Sandberg & Jamew W. Ragan (1986): Group Approaches for Improving Strategic Decision Making: A Comparative Analysis of Dialectical Inquiry, Devil's Advocacy, and Consensus. *The Academy of Management Journal*, 29, pp. 51-71.

Scott, Susanne G. & Vicki R. Lane (2000): A Stakeholder Approach to Organizational Identity. *The Academy of Management Review*, 25, 1, pp. 43-62.

Seidl, David (2004): The Concept of "Weak Signals" Revisited: A Re-description From a Constructivist Perspective. In Haridimos Tsoukas & Jill Shepherd (eds.), *Managing the Future: Foresight in the Knowledge Economy*, pp. 151-168. Malden, MA: Blackwell Publishing.

Shadish, William R., Thomas D. Cook & Donald T. Campbell (2002): *Experimental and Quasi-experimental Designs for Generalized Causal Inference*. Boston, MA: Houghton Mifflin.

Shannon, Claude E. & Warren Weaver (1949): *The Mathematical Theory of Communication*. Urbana, IL: University of Illinois Press.

Shrivastava, Paul (1983): A Typology of Organizational Learning Systems. *Journal of Management Studies*, 20, 1, pp. 7-28.

Siegel, Jane, Vitaly Dubrowsky, Sara Kiesler & Timothy W. McGuire (1986): Group Processes in Computer-Mediated Communication. *Organizational Behavior and Human Decision Processes*, 37, pp. 157-187.

Simon, Herbert A. (1957): *Administrative Behavior: A Study of Decision-Making Processes in Administrative Organization* (2nd edition). New York: Macmillan.

Simon, Herbert A. (1991): Bounded Rationality and Organizational Learning. *Organization Science*, 2, 1, pp. 125-134.

Singh, Gangaram, Kamal M. Haddad & Chee W. Chow (2007): Are Articles in "Top" Management Journals Necessarily of Higher Quality? *Journal of Management Inquiry*, 16, 4, pp. 319-431.

Slaughter, Richard A. (1995): *The Foresight Principle: Cultural Recovery in the 21st Century*. London: Adamantine.

Slaughter, Richard A. (1996): Futures Studies – From Individual to Social Capacity. *Futures*, 28, 8, pp. 751-762.

Slaughter, Richard A. (2002): From Forecasting and Scenarios to Social Construction: Changing Methodological Paradigms in Future Studies. *foresight*, 4, 3, pp. 26-31.

Smircich, Linda & Charles Stubbart (1985): Strategic Management in an Enacted World. *The Academy of Management Review*, 10, 4, pp. 724-736.

Spender, John-Christopher (1996): Organizational Knowledge, Learning, and Memory: Three Concepts in Search of a Theory. *Journal of Organizational Change*, 9, pp. 63-78.

Spradley, James P. (1979): *The Ethnographic Interview*. Belmont, CA: Wadsworth.

Spradley, James P. (1980): *Participant Observation*. New York: Holt, Rinehard and Winston.

Spradley, James P. & Brenda J. Mann (1975): *The Cocktail Waitress: Woman's Work in a Man's World*. New York: McGraw-Hill.

Spradley, James P. & David W. McCurdy (1972): *The Cultural Experience: Ethnography in Complex Society*. Prospect Heights: Waveland Press.

Staber, Udo & Jörg Sydow (2002): Organizational Adaptive Capacity: A Structuration Perspective. *Journal of Management Inquiry*, 11, 4, pp. 408-424.

Stalinski, Sherryl (2004): Organizational Intelligence: A Systems Perspective. *Organizational Development Journal*, 22, 2, pp. 55-67.

Stark, Stanley (1961): Executive Foresight: Definitions, Illustrations, Importance. *The Journal of Business*, 34, 1, pp. 31-44.

Sterman, John D. (2000): *Business Dynamics: Systems Thinking and Modeling for a Complex World*. Chicago, IL: Irwin/McGraw-Hill.

Stern, David (2000): Practices, Practical Holism, and Background Practices. In Mark Wrathall & Jeff Malpas (eds.), *Heidegger, Coping, and Cognitive Science. Essays in Honor of Hubert L. Dreyfus, Volume 2*. Cambridge, MA: MIT Press.

Stimpert, J. L., Loren T. Gustafson & Yolanda Sarason (1998): Organizational Identity within the Strategic Management Conversation: Contributions and Assumptions. In David A. Whetten & Paul Godfrey (eds.), *Identity in Organizations: Developing Theory through Conversations*, pp. 83-98. Thousand Oaks, CA: Sage Publications.

Stones, Rob (2005): *Structuration Theory*. Houndmills: Palgrave Macmillan.

Sutcliffe, Kathleen M. (1994): What Executives Notice: Accurate Perceptions in Top Management Teams. *The Academy of Management Journal*, 37, 5, pp. 1360-1378.

Sutton, Robert I. & Barry M. Staw (1995): What Theory is Not. *Administrative Science Quarterly*, 40, 3, pp. 371-384.

Sydow, Jörg, Georg Schreyögg & Jochen Koch (2009): Organizational Path Dependence: Opening the Black Box. *The Academy of Management Review*, 34, 4, pp. 689-709.

Sydow, Jörg & Arnold Windeler (1998): Organizing and Evaluating Interfirm Networks: A Structuration Perspective on Network Processes and Effectiveness. *Organization Science*, 9, 3, pp. 265-284.

Taleb, Nassim N. (2001): *Fooled By Randomness: The Hidden Role of Chance in Life and in the Markets*. New York: Texere.

Taleb, Nassim N. (2007): *The Black Swan: The Impact of the Highly Improbable*. New York: Random House.

Taylor, James R. & Daniel Robichaud (2004): Finding the Organization in the Communication: Discourse as Action and Sensemaking. *Organization*, 11, 3, pp. 395-413.

Teece, David J., Gary Pisano & Amy Shuen (1997): Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18, 7, pp. 509-533.

Thomas, James B., Shawn M. Clark & Dennis A. Gioia (1993): Strategic Sensemaking and Organizational Performance: Linkages among Scanning, Interpretation, Action and Outcomes. *The Academy of Management Journal*, 36, 2, pp. 239-270.

Thompson, James D. (1967): *Organization in Action*. New York: McGraw-Hill.

Trommersdorff, Gisela (1983): Future Orientation and Socialization. *International Journal of Psychology*, 18, 1, pp. 381-406.

Tsoukas, Haridimos (1996): The Firm as a Distributed Knowledge System: A Constructionist Approach. *Strategic Management Journal*, 17, Special Issue, pp. 11-25.

Tsoukas, Haridimos & Mary J. Hatch (2001): Complex Thinking, Complex Practice: A Narrative Approach to Organizational Complexity. *Human Relations*, 54, 8, pp. 979-1013.

Tsoukas, Haridimos & Jill Shepherd (2004a): Coping with the Future: Developing Organizational Foresightfulness. *Futures*, 36, 2, pp. 137-144.

Tsoukas, Haridimos & Jill Shepherd (2004b): Introduction: Organizations and the Future, From Forecasting to Foresight. In Haridimos Tsoukas & Jill Shepherd (eds.), *Managing the Future: Foresight in the Knowledge Economy*, pp. 1-17. Malden, MA: Blackwell Publishing.

Tsoukas, Haridimos & Efi Vladimirou (2001): What is Organizational Knowledge? *Journal of Management Studies*, 38, 7, pp. 973-993.

Turner, Barry A. (1976): The Organizational and Interorganizational Development of Disasters. *Administrative Science Quarterly*, 21, 3, pp. 378-397.

Turner, Stephen (1994): *The Social Theory of Practices: Tradition, Tacit Knowledge and Presuppositions*. Cambridge: Polity Press.

Tushman, Michael L. & David A. Nadler (1978): Information Processing as an Integrating Concept in Organizational Design. *The Academy of Management Review*, 3, 3, pp. 613-624.

Tushman, Michael L. & Thomas J. Scanlan (1981): Boundary Spanning Individuals: Their Role in Information Transfer and Their Antecedents. *The Academy of Management Journal*, 24, 2, pp. 289-305.

Tyre, Marcie J. & Eric von Hippel (1997): The Situated Nature of Adaptive Learning in Organizations. *Organization Science*, 8, 1, pp. 71-83.

Urry, John (1977): New Rules of Sociological Methods (Book Review). *Sociological Review*, 25, 4, pp. 911-915.

Vaast, Emmanuelle (2007): What Goes Online Comes Offline: Knowledge Management System Use in a Soft Bureaucracy. *Organization Studies*, 28, 3, pp. 283-306.

Van de Ven, Andrew H. (1989): Nothing Is Quite So Practical as a Good Theory. *The Academy of Management Review*, 14, 4, pp. 486-489.

Vanderstraeten, Raf (2002): Parsons, Luhmann and the Theorem of Double Contingency. *Journal of Classical Sociology*, 2, 1, pp. 77-92.

Van Maanen, John (1982): The Fact of Fiction in Organizational Ethnography. *Administrative Science Quarterly*, 24, 4, pp. 539-550.

Van Maanen, John (1988): *Tales of the Field: On Writing Ethnography*. Chicago: University of Chicago Press.

Varela, F. G. & H. R. Maturana & R. Uribe (1974): Autopoiesis: The Organization of Living Systems, its Characterization and a Model. *Biosystems*, 5, 4, pp. 187-196.

Voros, Joseph (2005): Speaking about the Future: 'Pro-vocation' and 'Ante-diction'. *Futures*, 37, pp. 87-96.

Walsh, James P. & Gerardo R. Ungson (1991): Organizational Memory. *The Academy of Management Review*, 16, 1, pp. 57-91.

Weaver, Gary R. & Dennis A. Gioia (1994): Paradigms Lost: Incommensurability vs Structurationist Inquiry. *Organization Studies*, 15, 4, pp. 565-590.

Weber, Max (1968): Methodology. In Talcott Parsons (ed.), *The Structure of Social Action: A Study in Social Theory with Special Reference to a Group of Recent European Writers*, Volume II – Weber (Paperback Edition). New York: The Free Press.

Weber, Max (1980): *Wirtschaft und Gesellschaft: Grundriss einer verstehenden Soziologie*. Tübingen: Mohr Siebeck.

Weber, Sue E. & Yihwa I. Liou, Minder Chen & Jay F. Nunamaker (1990): Toward more intelligent organizations. *Proceedings of the Twenty-Third Annual Hawaii Conference on System Sciences, Volume IV*, pp. 290-299.

Weick, Karl E. (1969): *The Social Psychology of Organizing*. Reading, MA: Addison-Wesley.

Weick, Karl E. (1989): Theory Construction as Disciplined Imagination. *The Academy of Management Review*, 14, 4, pp. 516-531.

Weick, Karl E. (1993): The Collapse of Sensemaking in Organizations: The Mann Gulch Disaster. *Administrative Science Quarterly*, 38, 4, pp. 628-685.

Weick, Karl E. (1995a): What Theory is Not, Theorizing is. *Administrative Science Quarterly*, 40, 3, pp. 385-390.

Weick, Karl E. (1995b): *Sensemaking in Organizations*. London: Sage.

Weick, Karl E. & Karlene H. Roberts (1993): Collective Mind in Organizations: Heedful Interrelating on Flight Decks. *Administrative Science Quarterly*, 38, 3, pp. 357-381.

Wernerfelt, Birger (1984): A Resource-Based View of the Firm. *Strategic Management Journal*, 5, 2, pp. 171-180.

Whetten, David A. (1989): What Constitutes a Theoretical Contribution? *The Academy of Management Review*, 14, 4, pp. 490-495.

Whetten, David A. (2006): Albert and Whetten Revisited: Strengthening the Concept of Organizational Identity. *Journal of Management Inquiry*, 15, 3, pp. 219-234.

Whetten, David A. & Paul C. Godfrey (eds.) (1998): *Identity in Organizations: Building Theory from Conversations*. Thousand Oaks, CA: Sage Publications.

Whetten, David A., Debra Lewis & Leann. J. Mischel (1992): *Towards an Integrated Model of Organizational Identity and Member Commitment*. Paper presented the Annual Meeting of the Academy of Management, Las Vegas.

Whitehead, Alfred N. (1931): On Foresight. In Wallace B. Donham, *Business Adrift*, pp. xi-xxix. New York: Whittlesey House/ McGraw-Hill.

Whittington, Richard (1992): Putting Giddens into Action: Social Systems and Managerial Agency. *Journal of Management Studies*, 29, 6, pp. 693-712.

Whittington, Richard (1996): Strategy as Practice. *Long Range Planning*, 29, 5, pp. 731-735.

Whittington, Richard (2002): Practice Perspectives on Strategy: Unifying and Developing a Field. *Paper Proceedings*, *Academy of Management Best.* Denver.

Whittington, Richard (2003): The Work of Strategizing and Organizing: For a Practice Perspective. *Strategic Organization*, 1, 1, pp. 117-125.

Whittington, Richard (2004): Strategy after Modernism: Recovering Practice. *European Management Review*, 1, 1, pp. 62-68.

Whittington, Richard (2006): Completing the Practice Turn in Strategy Research. *Organization Studies*, 27, 5, pp. 613-634.

Whittington, Richard (2007): Strategy Practice and Strategy Process: Family Differences and the Sociological Eye. *Organization Studies*, 28, 10, pp. 1575-1586.

Wilensky, Harold L. (1967): *Organizational Intelligence: Knowledge and Policy in Government and Industry*. New York: Basic Books.

Willis, Paul E. (1977): *Learning to Labour: How Working Class Kids Get Working Class Jobs*. Farnborough: Saxon House.

Wittgenstein, Ludwig (1953): *Philosophische Untersuchungen / Philosophical Investigations* (translated by G. Eliabeth M. Anscombe). Oxford: Basil Blackwell.

Wolcott, Harry F. (1995): *The Art of Fieldwork*. Walnut Creek, CA: AltaMira Press.

Wright, Charles R., Michael R. Manning, Bruce Farmer & Brad Gilbreath (2000): Resourceful Sensemaking in Product Development Teams. Organization Studies, 21, 4, pp. 807-825.

Yates, JoAnne & Wanda J. Orlikowski (1992): Genres of Organizational Communication: A Structurational Approach to Studying Communication and Media. *The Academy of Management Review*, 17, 2, pp. 299-326.

Yates, JoAnne, Wanda J. Orlikowski & Kazuo Okamura (1999): Explicit and Implicit Structuring of Genres in Electronic Communication: Reinforcement and Change of Social Interaction. *Organization Science*, 10, 1, pp. 83-103.

Yin, Robert K. (2003): *Case Study Research: Design and Methods* (3rd edition). Thousand Oaks, CA: Sage Publications.

Curriculum Vitae

1975	Older sister Nicole is born
1977	Born in Appenzell to Walter and Elfriede
1981	Sister Denise and brother Marcel are born
1984	First day at school
1990	First day at Kollegium St. Antonius, Appenzell
1991	First summer job
1994	Exciting exchange year with the Crows in Virginia, USA
1998	First day at University of St. Gallen
2001	Practical year Fell in love with Carmen
2002	Back to university
2003	Joined Capvis Equity Partners in Zurich
2004	Lic.oec.HSG
2005	Back to university again
2007	Tentative entrepreneurial steps
2009	Joined Altium Capital in Munich
2011ff.	Who knows?