

ORGANIZATIONAL CONFLICT, CONFLICT MANAGEMENT, AND COMMUNICATION:

A Social Complexity Perspective

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ACADEMIC DISSERTATION

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Kalle Siira

In Helsinki on September 16, 2013

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Abstract

Organizational conflict research has centered on a few dominant models that have directed the development of the field in theory and in practice. Although these models have undoubtedly benefited the field by providing a common focus, the focused concentration has had costs. Specifically, there has been a lack of approaches that depart from the positivistic, linear, and reductionist views of communication and conflict. This study answers this call by exploring the possibilities and implications that a social complexity approach has to offer organizational conflict management with a special focus on organizational communication.

The study consists of four sub-studies. Study 1 (conducted as a questionnaire comparing the conflict and face maintenance styles of Finns and U.S. Americans) functions as an entry to the study of organizational conflict management. Studies 2 and 3 (conducted as theoretical accounts) introduce social complexity principles for individual- and organizational-level conflict management, respectively. Finally, Study 4 develops a framework of managerial conflict influence based on a qualitative analysis of 30 semi-structured interviews.

In sum, the dominant individual- and organizational-level models are insufficient to account for conflict behavior and interaction as well as to address conflicts in organizations. A social complexity perspective on organizational conflict implies a constitutive role of communication processes in organizing. The communicative view of organizational conflict is illustrated by using the metaphors of performance, contradiction, and voice. Conflict management in turn is represented via three main variables (the dual function of communication, circumstances, and directness) resulting in six ideal types of influence at the individual level and four strategies at the organizational level.

This study contributes to the existing organizational conflict research by providing an alternative view of social complexity to understand the communicative aspects of the phenomenon. This approach helps to illuminate the limitations of and to find areas for development of the dominant models at the individual and organizational levels. This perspective also draws attention to the discursive aspects of organizational conflict, places conflict purely within a communicative context, caters to the relational and systemic aspects of conflict management, and takes a broader view of conflicts. In addition, this study contributes to the interpretivist strand of social complexity and provides a fresh metaphor of organizing for the organizational communication literature.

A List of Original Publications and Research Input

This dissertation is based on the following original articles, which are referred to in the text as Study 1, 2, 3, and 4.

Study 1: Siira, K., Rogan, R. G., & Hall, J. A. (2004). A spoken word is an arrow shot: A comparison of Finnish and U.S. conflict management and face maintenance. *Journal of Intercultural Communication Research*, 33(2), 89–107.

Siira (percent input 60 %) was responsible for most of the writing, including literature review, all of the data collection, and data analysis. He also wrote the first version of the study. Professor Rogan (35 %) supervised the writing process and helped to modify the article in a peer-review journal format (appropriate length, data tables, relevant references, and publishing process). Dr. Hall (5 %) wrote a paragraph concerning Finnish communication, and offered comments during the writing process.

Study 2: Aula, P. & Siira, K. (2007). Towards social complexity view on conflict, communication and leadership. In J. K. Hazy, J. A. Goldstein, & B. B. Lichtenstein (Eds.), *Complex systems leadership theory* (pp. 367–384), Boston, MA: ISCE Publishing.

The distribution of work between Professor Aula and Siira was twofold. Siira (50 %) wrote the first draft of the article and was responsible of the conflict-related literature and insights. Professor Aula (50 %) supervised the writing process, took responsibility for the article structure and format, and wrote most of the text concerning the organizational communication view adopted in the article.

Study 3: Aula, P. & Siira, K. (2010). Organizational communication and conflict management systems: A social complexity approach. *Nordicom Review*, 31(1), 125–141.

The distribution of work was identical to the Study 2. Siira (50 %) was responsible about all of the conflict-related literature and insights, while Professor Aula (50 %) contributed mainly to the

organizational communication literature and supervision of the writing process.

Study 4: Siira, K. (2012). Conceptualizing managerial influence in organizational conflict: A qualitative examination. *Negotiation and Conflict Management Research*, 5(2), 182–209.

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Organizational Conflict, Conflict Management, and Communication: A Social Complexity Perspective

Over the years, research on organizational conflict has accumulated around a few dominant models that have had a considerable effect on the development of the field academically and in practice (Lewicki, Weiss, & Lewin, 1992; Nicoitera & Dorsey, 2006). In short, most individual-level research is focused on the strategies of conflict parties, either as distributive and integrative negotiation or conflict styles, or as third-party intervention (see Putnam, 2006). The distributive and integrative negotiation model is based on Walton and McKersie's (1965) studies of collective bargaining. In the distributive negotiation model, bargainers approach conflicts as fixed-sum negotiations (win-lose), and aim to acquire most of the "fixed pie." In the integrative negotiation model, in turn, parties view conflicts as variable-sum negotiations (win-win), in which both parties' interests can be satisfied. The conflict style model (also known as the dual concern model) is based on Blake and Mouton's (1964) framework, according to which parties approach conflicts based on two dimensions: concern for self and concern for others. Conflict styles are typically measured with self-report instruments and categorized in five styles (or predispositions). Finally, third-party intervention models are based on frameworks in legal settings (Thibaut & Walker, 1975), and they examine the roles that managers adopt when engaged in conflicts as third parties or mediators. The early models categorized third-party roles according to two dimensions: control over the process and control over the outcomes.

During the past decades, also, the examination of organizational-level phenomena has gained momentum in the theory and practice of conflict management. In particular, a conflict management system model has attracted attention, as several major corporations and nonprofit organizations have adopted these comprehensive conflict management processes (Lipsky & Seeber, 2006) along with the increasing popularity of alternative dispute resolution (Goldman, Cropanzano, Stein, & Benson, 2008). Conflict management system models typically limit their scope to intraorganizational conflicts between managers and employees, employees and employees, and within work teams. These models are based on theories of rational decision-making (e.g., in economics and game theory) as well as general systems theory (e.g., von Bertalanffy, 1951).

The accumulation of research around a few dominant models has indisputably benefitted the field of organizational conflict by giving focus to research efforts. The dominant approaches have provided us "a rich field of study with excellent descriptive and explanatory power" similar to negotiation studies (Put-

nam, 1994, p. 337). There is, however, a downside to the strong concentration; that is, the focus of examination has been drawn to certain limited aspects of the phenomenon, thus blinding us to other important aspects. Indeed, various scholars have expressed their worry about the limitedness of the assumptions and strong biases underlying organizational conflict research (e.g., Lewicki et al., 1992; Nicotera & Dorsey, 2006; Putnam, 1994).

Of special interest to this study is the role of communication in organizational conflict and conflict management. Interestingly, Nicora and Dorsey (2006) critiqued most of the existing literature on organizational conflict for either taking a static view of communication or failing to examine it altogether. Although exceptions exist (e.g., Roberts, 1999), Nicotera and Dorsey (2006) stressed that communication literature on organizational conflict “remains mostly linear, positivistic, and reductionist” (p. 320).

Other organizational conflict scholars have aired critiques about the limitedness of assumptions as well. Bush and Folger (2005), for example, stated that conflict research is embedded in a Western belief according to which people are viewed as distinct and separate human beings who are accountable and affected only by their own choices, which thus plays down the relational and systemic aspects of conflict processes (Kolb & Putnam, 1992a). This is consistent with Lewicki et al.’s (1992) remark that most research treats organizational conflicts as separate, bounded processes, where the essential part of negotiation happens “at the negotiation table.” Organizations, in turn, have been treated essentially as harmonious and cooperative entities, where conflicts represent aberrations and outbreaks from the efficient course of organizational action and thus need to be resolved via direct interventions (Pondy, 1967). This dysfunctional view of conflict is salient, particularly among practitioner-driven normative work (Lewicki et al., 1992).

What has been missing then? According to Nicotera and Dorsey (2006), communication research on organizational conflict should move toward interpretive, naturalistic, and discursive approaches, as has been done within the field of organizational communication in general (e.g., Fairhurst & Putnam, 2004; Cooren, 2000; Taylor & Van Every, 2000) and other conflict contexts such as hostage negotiation (e.g., Donohue & Roberto, 1993). Pondy (1992), in turn, challenged the prevalent view of organizations as cooperative entities, and proposed that conflict should be viewed as “the very *essence* of what an organization is” (p. 259; emphasis in the original). Although the question concerning conflicts has served as the central basis of every school of organizational thought (De Dreu & Gelfand, 2008), the view of conflict as “the very essence” of organization has taken root rather recently in organizational conflict research (e.g., Jameson, 2004).

In short, there is a call for alternative approaches to organizational conflict and its management. Moreover, there is a need for research that takes communication in the forefront of examination, yet departs from the linear views of communication, and, on the contrary, that provides an alternative to the linear, reductionist, and cooperative views of organizations and conflict processes. Although such movement has been more prevalent recently (e.g., DeWulf et al., 2009), there is still a plenty of room for alternatives.

Thus, the purpose of this study is to answer this call by exploring an alternative approach that is believed to fit the aforementioned criteria. In particular, this study explores the implications and possibilities that a so-called social complexity approach to organizational systems offers for the study of conflict management, when viewed from an organizational communication perspective.

So far, there has been a lack of research combining social complexity and conflict while taking an explicitly communicative perspective, which is a bit surprising given the centrality of both conflict and communication to complex organizing processes (e.g., Stacey, 2003) as well as the rapid pace at which complexity has been applied to numerous phenomena in both natural and social sciences (Maguire, Allen, & McKelvey, 2011). There have been a few efforts to apply complexity principles to conflict (e.g., Vallacher, Coleman, Nowak, & Bui-Wrzosinska, 2010; Coleman, 2006; Sword, 2008); however, they typically lack an organizational (see Andrade, Plowman, & Duchon, 2008, for an exception) and a communicative focus. Finally, even though related phenomena have been studied from this perspective, such as organizational change (Shaw, 2004), the communicative approach in complexity sciences is yet to be utilized within organizational conflict research.

As noted above, the purpose of this study is to explore the implications and possibilities that a social complexity approach offers to the study of organizational conflict, with a special emphasis on organizational communication. In particular, this study aims to answer the following questions: (1) How can organizational conflict be understood and explained as a communicative phenomenon when viewed from a social complexity perspective? (2) How can conflict management be represented as a communicative phenomenon when viewed from a social complexity perspective? (3) Which implications does this view have on the dominant conflict management models?

To answer these questions, four studies were conducted, each with a specific role and purpose in relation to the overall study (see Table 1). Study 1 functioned as an entry to the study of organizational conflict management. That is, it delved into the most dominant organizational conflict management model, conflict styles framework. Although not operating within the social complexity paradigm, it provided a basis on which the consequent studies were built. In particular, it revealed the limitations and assumptions of the dominant individual-level

conflict management model as well as the communicative ground upon which it stands. Study 2, in turn, introduced social complexity principles to individual-level conflict management. Moreover, it examined a concept of dual function of communication as a way to understand and explain conflict management and made explicit the assumptions and communicative approach underlying the conflict style framework when examined from a social complexity perspective. Study 3 introduced the social complexity perspective to the dominant organizational-level framework: conflict management systems. Similar to Study 2, Study 3 discussed the theoretical and practical weaknesses of the dominant model, and revealed the assumptive and communicative ground underlying it. In addition, Study 3 proposed a tentative framework of organizational-level conflict strategies based on the social complexity perspective. Finally, Study 4 developed a framework of managerial conflict influence based on a qualitative analysis of 30 semistructured interviews. In addition, the study discussed the two most common individual-level conflict management approaches (i.e., conflict styles and third-party intervention roles) and proposed ways to develop them from the social complexity perspective. Study 4 also further discussed the conceptualization of communication when organizational conflict is approached from the social complexity perspective.

Table 1 *A Summary of the Roles and Purposes of Each Study in Relation to the Overall Study*

	Study 1	Study 2	Study 3	Study 4
Role	Entry to organizational conflict management	Introduction of social complexity to individual-level conflict management	Introduction of social complexity to organizational-level conflict management	Application of social complexity to conflict management
Purpose	To apply and understand conflict styles framework	To examine individual-level conflict management from a social complexity perspective	To examine organizational-level conflict management from a social complexity perspective; and to propose an organizational-level framework of conflict strategies	To develop a framework of managerial conflict influence

The aim of this summary article, in turn, is to explicate and summarize the results, and to clarify the relationships between the studies. In addition, this article reviews relevant communication and conflict literature and takes a reflective stance on the ontological and epistemological underpinnings of this study. This article starts with a brief discussion of social complexity and its origins, followed with its adoption to organizational, organizational communication, and organizational conflict research. The common approaches, critiques, and shortages

within those areas are discussed as well. This is followed by a discussion of how social complexity is approached and employed in this study and how this study is positioned within the existing literature as well as the limitations and shortages entailed by this approach. Then, the four substudies are discussed in a more detail. The section includes, specifically, an explanation of the relationships of the four studies and a discussion of their contributions to the research questions. The studies are also discussed concerning their stance on a few key issues in organizational communication. Finally, the article finishes with a discussion of the results, limitations and future suggestions, and conclusions of the study.

1. TOWARD A SOCIAL COMPLEXITY PERSPECTIVE

In short, social complexity refers to the study of social phenomena based on complexity science principles.¹ Complexity science, in turn, is tightly fastened on natural sciences and has evolved from various disciplines over the past few decades such as chemistry, biology, and mathematics (e.g., Kauffman, 1991; Prigogine, Nicolis, & Babloyantz, 1972; Thom, 1975). In general, complexity science refers to “the systematic study of complex systems as well as the phenomena of emergence and complexity to which they give rise” (Maguire et al., 2011, p. 2).

The field of complexity science is highly fragmented. Thus, complexity science ought to be viewed as an emerging approach and a set of theoretical and conceptual tools, as opposed to a single, unified body of theory, as sometimes misleadingly implied (Walby, 2007). As Mitchell (2009) concludes, “neither a single science of complexity nor a single theory of complexity exist yet” (p. 14)². Despite the fragmentation, there have been efforts to provide general characteristics of complex systems. Richardson, Cilliers, and Lissack (2001) for example highlight four characteristics of complex systems: system memory/history, a diversity of behaviors, chaos and self-organization, and the incompressibility of complex systems (see also Cilliers, 1998).

Two research traditions have been identified from the variety of complexity approaches (Maguire, McKelvey, Mirabeau, & Öztas, 2006; McKelvey, 2004); one that draws mainly from physical sciences and utilizes typically mathematical models, and the other that draws from life sciences and typically employs computational approaches and agent-based models.

Although the two traditions are highly overlapping, they emphasize different aspects of the phenomenon. Whereas the former emphasizes system-environment processes and “gives an explanation of the forces behind the search for order,” the latter stresses intrasystem processes and “describes how order emerges from a disorganized world” (Thietart & Forgues, 2011, p. 58).

¹ In this article, the term *social* is dropped when the social context in the use of complexity is self-evident.

² Because of the high fragmentation, the terminology used about complexity is all but unanimous. Some use *complexity science* to distinguish it as a new, paradigm-shifting science (e.g. Maguire et al., 2011), while others prefer *complexity sciences* (e.g. Mathews et al., 1999) or *complexity theories* (e.g., Burnes, 2005) to highlight the multitude of approaches that utilize complexity principles. However, for the sake of simplicity and readability, this study employs the singulars; that is, *complexity theory* is used when referring to the theories and *complexity science*, when referring to the academic work from the complexity perspective in general.

Although the questions of complexity have intrigued scholars of society since the emergence of formal sociology in the middle 1800s, social and cultural sciences began to “go complex” only in the late 1990s, via collections such as *Chaos, Complexity and Sociology* by Eve, Horsfall, and Lee (1997) and *Chaos Theory in the Social Sciences* by Keil and Elliott (1996; see Urry, 2005). Since then, social science applications of complexity science have included a variety of fields including family therapy (Bütz, Chamberlain, & McCown, 1996), environmental sustainability (Norberg & Cumming, 2008), and processes of war (Ilachinski, 2004).

1.1 Social Complexity and Organizational Research

Organizational scholars have been enthusiastic to transfer the ideas and concepts of complexity theory from natural science to the domain of human organizations. The key advocates of the approach have argued that it constitutes a major revolution in thinking comparable to the impacts of the Enlightenment on society: “Complexity science challenges not only the foundations of our knowledge – our philosophy and our science – but also the economic, political and social institutions we build upon that knowledge” (Maguire et al., 2011, p. 2).

Complexity approaches to the study of organizational phenomena have grown dramatically, particularly during the past two decades (Maguire et al., 2006). Social complexity scholars generally agree that the complexity approach represents a more accurate and appropriate way to study organizational phenomena than the traditional approaches to organizations do (e.g., Maguire et al., 2006; Byrne, 1998; Marion & Uhl-Bien, 2007; Mathews, White, & Long, 1999; Snowden & Boone, 2007). The advocates of the complexity approach have also credited it for its extensive applicability: “complexity science offers organizational researchers a set of concepts at a level of abstraction almost mathematical in its flexibility and diversity of applications” (Maguire et al., 2006, p. 167). Indeed, complexity principles have been utilized in the study of various organizational phenomena, such as organization-environment relationships and organizational change; important management issues, such as leadership and corporate strategy; and interfaces between complexity and adjacent disciplines, such as psychology and economics (see Allen, Maguire, & McKelvey, 2011).

Owing to the fragmentation of the field, the definition of *complexity* is all but unanimous. One view that has dominated historically in organization studies regards complexity as *an objective system property that correlates with the system’s structural intricacy* (Maguire, 2011); that is, complexity is viewed to increase with the number of parts and the density and variability of relations among the parts (also referred to as “relational complexity”; see Boisot & Child,

1999). Alternatively, complexity can also be viewed more subjectively as correlating with the difficulty of representing and making valid or accurate predictions about the system (also referred to as “cognitive complexity”; see Boisot & Child, 1999; Moldoveanu, 2005).

1.1.1 THE ROOTS OF COMPLEXITY IN ORGANIZATIONAL RESEARCH

Although complexity science, as it is currently known, entered organization science in the 1980s, the foundations of complexity have been well established in organization science. Social complexity theory can be viewed to have evolved via two paths: complexity as a structural variable and systems theory (see Maguire et al., 2006).

Historically, the concept of complexity has been understood as a structural variable to characterize organizations and their environments. Simon (1962) for example viewed complexity as a result of the rich and interdependent interaction between many parts, which makes the prediction of the system-level behavior difficult. This relational view of complexity (Boisot & Child, 1999) is still commonly used to define and approach complexity (e.g., Daft, 1992; Scott, 2002).

The systems approach to organizations also has a long history, dominating organizational study for decades until the 1970s (Reed, 1985). Within the systems approach, two schools can be identified. Most early work on systems theory can be viewed to represent a “hard” systems approach, which viewed organizations as rational, natural, and open systems (Scott, 2002). Several scholars contributed to this approach, such as Barnard (1938), von Bertalanffy (1951, 1968), Boulding (1956), Miller (1978), Simon (1962), Ashby (1956), Katz and Kahn (1966) and Thompson (1967). As Maguire et al. (2011) note, this view is still widely employed by social complexity scholars. A “soft” systems approach, in turn, is a more recent development (e.g., Silverman, 1970). One of the prominent soft systems advocates, Checkland (1994), built upon Vickers’s (1965) notion of an appreciative system. He argued that “actors’ interpretations of their problem situations, *in situ*, are an important – indeed, integral – part of the system under study and thus the focus of research” (Maguire et al., 2006, p. 172; emphasis in the original). The division between “hard” and “soft” strands is not, however, a definitive one. In fact, some scholars (e.g., Daft & Weick, 1984) have moved toward a view that the two-system perspectives, hard and soft, interpenetrate each other.

1.1.2 COMPLEXITY APPROACHES IN ORGANIZATIONAL RESEARCH

In general, two major strands of complexity research can be identified within organizational studies (Maguire et al., 2006). The “objectivist strand” tends toward positivism and draws heavily from the traditional natural science epistemology. Thietart and Forgues (2011) identify self-organizing systems, deterministic chaos, path dependence, complex adaptive systems, and “an emergent ‘selectionist’ context view” (p. 56) as the major schools of thought within the objectivist, model-based approaches. The “interpretivist strand,” in contrast, tends toward postmodernism or poststructuralism and adopts a meaning-based ontology and epistemology. Interpretivists utilize a variety of concepts in complexity theory and emphasize “organizations and their members as interpretive, sense-making systems” (Maguire et al., 2006, p. 175). They adopt complexity concepts typically as metaphors. One of the known advocates of this approach, Stacey (1996), suggests, “Perhaps the science of complexity adds most value because it provides new analogies and metaphors for those in the research community” (p. 265).

What is significant in distinguishing between the two major strands is the question of what constitutes information within and about a system. While the objectivists adopt an information-based stance “premised on the existence and accessibility of objective information about a given system” (Maguire et al., 2006, p. 174), the interpretivists deny the possibility of identifying any information as objective. Utilizing Boisot and Child’s (1999) categorization, Maguire et al. (2006) posit that objectivists can be viewed as complexity-reducers, and interpretivists, as complexity-absorbers. That is, objectivist researchers tend to “elicit the most appropriate single representation” in order to generalize and simplify (i.e., “reduce”) complexity while interpretivist “can hold multiple and sometimes conflicting representations” (i.e., “absorb”; Boisot & Child, 1999, p. 238).

Such philosophy-driven questions of epistemology, ontology, and methodology have inspired a wealth of literature by the advocates of both objectivist and interpretivist approaches (see Maguire et al., 2006). What have been common concerns for researchers on both sides is the status of complexity as postmodern or not (e.g., Byrne, 1998; Cilliers, 1998) and the limits of knowledge about complex systems (e.g., Allen & Boulton, 2011; Cilliers, 2000, 2002, 2011). Objectivists have also discussed in detail the construct of emergence, its roots in science, and its implications from an epistemological perspective (e.g., Goldstein, 1999). They have also emphasized complexity science as a new normal and model-centered science (e.g., McKelvey, 1997, 1999a, 2002, 2003, 2004). Interpretivists in turn have argued for the benefits of adopting phenomenal complexity and action theory perspectives. The key advocate of the phenomenal complexity view, Letiche (2000), for example argues that understanding complex systems requires the acceptance of various valid “truths,” and stresses the need to pay attention to the experiencing subject. Juarrero (1999, 2000), in turn, links action theory

to complexity science, and employs complexity theory as “a theory-constitutive metaphor” for rethinking causality. Finally, the interpretivists also argue for the benefits of narrative methods to approach complexity. According to Tsoukas and Hatch (2001), the narrative approach addresses important concepts – contextuality, reflexivity, expression of purposes and motives, and temporal sensitivity – which the traditional, logico-scientific approaches have failed to address.

Objectivist work that applies complexity concepts to specific organizational phenomena (“phenomena driven work”) utilizes mostly agent-based models (ABM) to simulate organizational phenomena. In fact, Lichtenstein and McKelvey (2004) identify over 300 ABMs relevant to organization studies. In particular, the fitness landscape frameworks, drawn from biology, have been widely utilized by organizational scholars. This approach has been used to explain various phenomena such as learning curves in technology evolution (Kauffman, 1995) and organizational adaptation (Levinthal, 1997). Other ABM have also been present for a long time, and they are used “to model aspects of complex systems by simulating self-organization, order creation and emergence of structures or cultures” (Maguire et al., 2006, p. 187). Epstein and Axtell (1996), for example, use a cellular automata model to examine emergent economy, culture, and structure. There is also a significant amount of qualitative work that can be categorized as objectivist work. It typically aims to build theory that could be used to test hypotheses or modeled computationally. Brown and Eisenhardt (1997, 1998), for example, utilize the “edge of chaos” approach to examine how companies engage in continuous innovation and change.

The interpretivist literature, conversely, tends toward qualitative research and narrative approaches. Maguire et al. (2006) distinguish four clusters of phenomena driven work within the interpretive strand. The first cluster takes a self-conscious stance on the use of complexity metaphors as management tools. Dubinskas (1994), for example, examines the concept of edge of chaos as a metaphor that organizational explains change more effectively than the biological and evolutionary models do. Polley (1997), in turn, discusses the benefits and dangers of using metaphors in science. He focuses specifically on the practical implications of using the metaphors of chaos and bifurcation for managing turbulence in organizations, and their integration with process research. The second cluster revolves around knowledge management, where knowledge is conceived as being an outcome that emerges from agents’ interactions within a complex system. Lissack (2000), for example, relates knowledge management with the view of individuals and organizations as interpretive systems seeking coherence. Similarly, Snowden (2000) stresses the emergent nature of knowledge and insights from interactions in organizations. He links knowledge management with storytelling, and uses empirical work to support his argument about the practical value of a narrative approach to knowledge in complex systems. The

third cluster can be illustrated by the work of Lissack and Letiche (2002), who relate coherent knowledge with experienced complexity. They view coherence as “socially tested awareness of a situation in which a group has found a way for the parts of their narration—facts, observations, data—to fit together meaningfully” (p. 87). Finally, the applied phenomenal complexity work can be illustrated by Boje’s (2000) qualitative case study that aims to explain the contradictory findings concerning the Disney Company. According to Boje, change is a constant at a corporation such as Disney, which thus makes “piece-meal-consulting efforts not only obsolete but also potentially dangerous” (p. 565).

Table 2 *A Summary of Complexity Approaches in Organizational Research*

Approach	Focus of Research	Representative Work
Objectivist: Philosophy driven		
	Status of postmodern or not	Byrne (1998)
	Limits to knowledge	Allen and Boulton (2011)
	Emergence	Goldstein (1999)
	Complexity science as new normal and model-centered science	McKelvey (1997, 1999a, 2002, 2003, 2004)
Interpretivist: Philosophy driven		
	Status of postmodern or not	Cilliers (1998)
	Limits to knowledge	Cilliers (2000, 2002, 2011)
	Phenomenal complexity and action theory	Letiche (2000) Juarrero (1999, 2000)
	Narrative methods	Tsoukas and Hatch (2001)
Objectivist: Phenomena driven		
<i>Fitness landscape Models</i>	Theorizing about organizational phenomena using fitness landscape models	Kauffman (1995) Levinthal (1997)
<i>Other ABMs</i>	Modeling and simulating aspects of complex systems	Epstein and Axtell (1996)
<i>Qualitative studies</i>	Theory building for hypothesis testing and computer modeling	Brown and Eisenhardt (1997, 1998)
Interpretivist: Phenomena driven		
<i>Metaphors as tools</i>	Self-conscious stance of the use of complexity metaphors	Dubinskas (1994) Polley (1997)
<i>Knowledge management</i>	Emergent nature of knowledge	Lissack (2000) Snowden (2000)
<i>Coherence</i>	Coherent knowledge linked to experienced complexity	Lissack and Letiche (2002)
<i>Phenomenal complexity</i>	Emergent nature of change and its management	Boje (2000)

Note: Adopted from Maguire et al. (2006)

1.1.3 CRITICISM OF COMPLEXITY APPROACHES IN ORGANIZATIONAL RESEARCH

Although complexity theory has been celebrated within and applied to organizational studies with enthusiasm during the past few decades, it has not been left without criticism (e.g., Chia, 1998; Johnson & Burton, 1994; Rosenhead, 1998). Chia (1998), for example, argues that complexity approaches are doomed to fail because there is a “qualitative difference between the social world and the world of inert material.” Moreover, that such approaches are thus unable to address the “issues of subjectivity, meaning, the limitations of language, and the essentially interpenetrative and transformative character of human experience” (p. 342).

The main concern of the advocates of complexity themselves has been the fear of letting social complexity become another management fad (Stacey, Griffin & Shaw, 2000; Sardar & Ravetz, 1994; McKelvey, 1999b). A review of various early complexity theory and management books revealed that complexity principles had been “faddishly” applied in books and by consultants (Maguire & McKelvey, 1999). Consequently, social complexity scholars have systematically aimed to build up “a base of high quality scientific activity aimed at supporting complexity applications to management and organization science—thereby thwarting faddish tendencies” (McKelvey, 1999b, p. 6).

In addition, five specific areas of criticism can be identified toward complexity theory within organizational studies. As noted above, both objectivist (e.g., Allen, 2000) and interpretivist (e.g., Cilliers, 1998) scholars highlight the inescapable limitedness of knowledge about complex systems. Maguire et al. (2006) note that it is impossible to capture all that is relevant to complex systems in a single representation. Thus, knowledge about a complex system is “inevitably and unavoidably incomplete” (p. 182). Further, although the study of complexity has developed at a fast pace, particularly during the past two decades, transferring concepts from the natural to social domain is somewhat problematic. That is, organizational scholars have employed the concepts of complexity even though some researchers in the natural sciences have questioned the validity of the same concepts. Rosenhead (1998), for example, noted that although there are a considerable number of findings that “have passed the stringent tests of scientific validity” (section 5, para. 6), not all results are firmly grounded on empirical observations. Thus, “It is certainly arguable whether it [complexity theory] is sufficiently well established to serve as a reliable source of analogies for the field of management” (section 6, para. 7). According to him, scholars typically refer to “scientific authority,” although no such scientific evidence exists.

Another major criticism concerns importing models and theories from physical and life sciences to the study of social phenomena and not paying attention to the hard scientific origins of the original phenomenon. That is, scholars are sometimes rather nonspecific about how they relate the original natural domain

to the new organizational domain. For example, scholars sometimes fail to make explicit whether they focus on the organization or its environment, when observing chaotic behavior (Rosenhead, 1998). Cilliers (2011) in turn notes that the concepts of complexity and chaos are “sometimes intertwined with too much ease” (p. 143), although they present different approaches to complexity. Further, scholars are somewhat limited in their selection of the types of complexity they are presenting. For example, as Rosenhead (1998) notes, writers almost invariably refer to deterministic chaos when citing mathematical chaos theory, whereas stochastic chaos, which might not yield to such “weird and wonderful results” (section 5, para. 13), has attracted less theoretical attention. As Maguire and McKelvey (1999) note, books that adopt complexity principles almost solely focus on the “edge of chaos” – one side being the region of emergent complexity; the other being deterministic chaos” (p. 55), although other kinds of complexity exist as well, such as random, probabilistic, and Newtonian dissipative structures.

Finally, complexity literature typically lacks empirical evidence. A large amount of complexity literature focuses on introducing the complexity principles to different areas of organizational studies, and is consequently descriptive, rather than empirical, in nature. In addition, the scholars that harness complexity by using analogies and metaphors to understand organizational functioning (e.g., Stacey, 1996) often base their arguments on illustrative examples, resemblance thinking or anecdotes. As Contractor (1999) notes, “The authors offer several illustrative anecdotes of organizational activities and structures that appear to bear out these characteristics. However, the plural of anecdote is not empirical evidence” (p. 156). The lack of empirical evidence is typical also to objectivists, who use computer simulations to explain and understand social behavior in organizations. First of all, most such ABM do not use real-world data (Scott, 2002), and, further, they actually increase the need for empirical follow-up studies and observations (Corman, Kuhn, McPhee, & Dooley, 2002).

In addition to the general criticism toward applying complexity to organizational studies, the two approaches to complexity in organizational studies, interpretivist and objectivist, have sparked specific criticism.

The criticism toward objectivist approaches includes three main issues. First, lack of validity has been one of the main criticisms, especially within the objectivist, model-based approaches to complexity in organizations. When developing models, one is bound to make simplifying assumptions about the “reality” of human and organizational functioning. Maguire et al. (2006) point out that using “complexity reduction” strategies, such as computer modeling, necessarily concern: (1) system boundaries, in terms of what is less relevant; (2) reduction of full heterogeneity to a typology of constituent elements; (3) individual elements of an average type; and (4) processes that run at their average rate (p. 180). Some scholars have disputed whether it is possible at all to develop mea-

ningful models and simulations based on such assumptions (e.g., Cilliers, 2002; Rosenhead, 1998; Lissack & Richardson, 2001). Burnes (2005) draws from similar critiques (Lansing, 2002; Parellada, 2002) and notes that “just because we can model something does not mean that the model can teach us anything about what happens in the real world” (p. 81). Merali and Allen (2011) note, however, that nowadays, models have become increasingly sophisticated and are able “to capture *some of the richness and diversity* of human experience” (p. 50; emphasis added), thus admitting the inevitable limitedness of computer models to capture all that is relevant to human experience.

Another criticism concerns the viability of directly applying the mechanisms of living systems to social systems (e.g., Maturana, 1988; Varela, 1981). Contractor (1999), representing a self-organizing systems perspective, has criticized model-based approaches for their lack of domain-specific models. According to him, there is a need to ground the models of organizational systems and networks based on content-specific generative mechanisms, such as those derived from existing social scientific theories. Finally, Contractor (1999) raises his concern about the typical problems of computational modeling techniques and programs. According to him, there are at least seven shortages concerning them: (1) They are not logically consistent; (2) They are not theoretically grounded (i.e., They do not contribute to cumulative theory building.); (3) They are not sufficiently complex; (4) They have bad user interface; (5) They are not easily replicable by other scholars; (6) They are not comprehensible to scholars that do not understand computational modeling; and (7) They lack substantive validity (not validated using empirical data from field or experimental studies). Further, Contractor (1999) argues that one important reason for the shortages is the limited ability of individual scholars to be able to handle the various facets of the research enterprise, including mathematical modeling and computer programming.

Although much of the criticism toward interpretive approaches focus on and stem from the vast popular management literature that is based on rather weak theoretical grounds (“faddish”; Maguire & McKelvey, 1999), much of the same criticism is relevant also to the literature that stands on firmer philosophical foundations. At least four major areas of criticism can be identified.

First, as several scholars have noted (e.g., Richardson, 2011; Maguire et al., 2006), one of the most alarming shortages of interpretivist work is their lack of reflexivity. In particular, the critics have criticized the lack of epistemological sensitivity and critical reflection when adopting complexity principles to organizational phenomena metaphorically (Cilliers, 2000). Although the metaphorical deployment of complexity science has been popular in both objectivist and interpretivist literature, interpretivists generally aim “to generate new insights” (Tsoukas & Hatch, 2001, p. 238), which has led to the adoption of

new metaphors. Moreover, although the advantages of metaphorical approach to complexity have been noted (e.g., Stacey, 1996), they can also “obscure and confuse” (Maguire et al., 2006, p. 175). What is imperative is reflexivity and self-consciousness when using metaphors. That is, there is a need to acknowledge the limitations of the approach, and not merely the benefits.

Second, some scholars have stated that the interpretivist approaches do not actually add intellectual value to the existing knowledge or theories of organizations (e.g., Contractor, 1999). Rosenhead (1998) notes that, for example, Ralph Stacey, one of the most influential complexity scholars in management, draws heavily from other management scholars that have reached comparable results, although they operate in drastically different conceptual frameworks. For example, Rosenhead mentions Etzioni’s (1971) account on planning as an example of work that attempts to encompass the “complexity insight” that organizations need for both control and innovation. Similarly, Arndt and Bigelow (2000) caution against “our zeal to jump on the chaos/complexity bandwagon” (para. 10), stating that the lack of a solid theoretical ground might give “the appearance of being up-to-date but represents merely the appropriation of new language” (para. 2).

Third, the metaphors and terminology used in complexity literature have been criticized for being too imprecise, and thus resulting in confusion and misunderstandings (e.g., Contractor, 1999; Maguire et al., 2006). Contractor (1999) notes that when complexity terminology is used metaphorically, the meanings of the terms are sometimes obscure. Thus, he stresses that there is a need “to move up the operational hierarchy of these concepts” (p. 158), and that the next stage should be the specification of models, or “systematically developed metaphors” (Black, 1962; in Contractor, 1999, p. 158). Similarly, Arndt and Bigelow (2000) point out that to avoid the danger of becoming just another management fad, chaos and complexity should be treated not merely as a new language, but as theories that are used to develop conceptually grounded testable hypotheses.

Finally, consistent with Arndt and Bigelow’s concern is the lack of rigor and theoretical advancement that particularly the “soft,” metaphorical strand of complexity work has been criticized for. Particularly the objectivist-oriented scholars have challenged the value of metaphorical work, and called for rigorous use of computational models and methods (e.g., Sorenson, 2002). Eisenhardt and Bhatia (2002) take a less strict stance and note that there is a need to “try to advance complexity theory by beginning to ground the metaphor in rough constructs and propositions, which can be explored with a variety of research methods including computation” (p. 461).

1.2 Social Complexity and Organizational Communication Research

The line between general organizational studies and organizational communication studies is somewhat blurry within complexity science. That is, communication, information, and knowledge play important roles in various organizational scholars' work (e.g., Nonaka, 1988; Lissack, 2000; Snowden, 2000) as well as philosophical accounts concerning what constitutes complexity (Maguire et al., 2006). On the contrary, communication-oriented scholars have been active in participating in the discussions concerning the foundations (see e.g., Luhman & Boje, 2001; Tsoukas & Hatch, 2001) as well as reflections (Contractor, 1999) within complexity science. Thus, unsurprisingly, the roots of complexity can be traced to systems approaches in communication sciences similar to general organizational literature. In addition, complexity approaches to communication have also drawn significantly from symbolic interactionist premises (i.e., Mead, 1934).

1.2.1 THE ROOTS OF COMPLEXITY IN ORGANIZATIONAL COMMUNICATION RESEARCH

Systems approaches have been prevalent in communication and social sciences for centuries. As Mattelart and Mattelart (1998) note, "The idea of society as an organism, that is, a whole composed of organs performing pre-determined functions, inspired the earliest conceptions of a 'science of communication'" (p. 5). For example, in the 18th century, Adam Smith considered communication channels as a critical aspect of organizing. Claude Henri de Saint-Simon, in turn, drew from the metaphor of living being, which "marked the advent of the organism as network" (Mattelart & Mattelart, 1998, p. 7). Since the early approaches to systems thinking, several system theoretical approaches have been developed in social sciences, of which three theories have been particularly important to the study of organizational communication (Monge & Contractor, 2003): structural-functionalism (e.g., Lasswell, 1948), cybernetics (Wiener, 1948), and general systems theory (e.g., von Bertalanffy, 1968).

Although differing in the underlying logics, both structural-functionalist and cybernetic systems conceptualize organizations as open systems, implying boundaries between the system and its environment (see Wiio, 1974). Further, both are very control oriented and focus on maintaining the status quo (Monge & Contractor, 2003). General systems theory, in turn, uses perspectivism, referring to "the isomorphism of scientific laws across various fields" (Monge & Contractor,

2003, p. 83). As Contractor (1994) notes, the image of organization as a system contributed significantly to the theorizing of organizational communication.

Language and sense-making aspects of organization were also acknowledged within systems literature. Pondy and Mitroff (1979), using Boulding's (1968) nine levels of system complexity, challenged scholars to go beyond open systems models, that is, to enter the higher levels of complexity, which requires viewing organizations as "language-using, sensemaking cultures" (Boje & Baskin, 2005, p. v).

In addition to the systems tradition, complexity approaches to organizational communication have also drawn directly from the early work that emphasized subjective aspects of life, meaning, and interpretation. Mead's (1934) conceptualization of language as communication through significant symbols and his successor Blumer's (1969) work on symbolic interactionism have inspired various complexity and communication scholars (e.g., Hoffman, 2008; Stacey, 2003). In addition, the social constructionist framework (e.g., Berger & Luckmann, 1966) has gained attention in complexity approaches to organizational communication (e.g., Aula, 1999).

1.2.2 COMPLEXITY APPROACHES IN ORGANIZATIONAL COMMUNICATION RESEARCH

Although communication-based work³ that utilizes complexity varies to a great extent, it follows roughly the same categorization as within organizational research in general: objectivist and interpretivist work.

The objectivist literature views organizations as networks of communicating agents, and utilizes computational modeling and sophisticated mathematical analyses to capture the complexities of organizing. They stress the importance of adding precision and rigor to the study of organizational communication as a dynamic process (e.g., Contractor, 1994) and the need of techniques and methodologies that are capable of handling large quantities of communication (Corman et al., 2002). Within the objectivist literature, three strands can be identified.

First, ABM are rooted in theories that typically acknowledge the dynamic nature of human interaction and organizing. Thus, they tend also to integrate interpretive aspects of communication within their models. Contractor (1994), for example, posits that a self-organizing systems perspective on organizational communication "bears the promise of building on insights gained from contem-

3 This section includes literature based on the communicative approach and characteristics of the study, as opposed to the academic field or department that the scholar represents (as in the cases of for example Pincus & Guastello, 2005; Shotter & Tsoukas, 2011).

porary interpretive and critical research” (p. 57). He provides an example of “how structurational arguments to the study of the emergence of shared meaning in organizations can be articulated in a self-organizing systems framework” (p. 53). He uses three equations to articulate the underlying logic linking the variables of coordinated activity, shared interpretations, and environmental resources. Although appearing as a somewhat simple set of equations, Contractor posits that the long-term dynamics they generate are beyond human understanding. The benefit of computer simulations is to be able to deduce precise hypotheses as well as theory building, not model prediction or forecasting as conventional in physical sciences. Contractor and Grant (1996), in turn, employ self-organizing systems perspective to reconceptualize the emergence of shared interpretations and to provide an example of a model that simulates the process “by which a group of individuals who start out with some initial communication and semantic network configurations self-organize their subsequent levels of interactions (i.e., communication networks) and interpretations (i.e., semantic networks)” (p. 221).

Monge and Contractor (2003) find agent-based modeling to be “a particularly useful framework to study the emergence of communication and knowledge networks” (p. 91), where the networks include both human agents (or aggregates of humans; e.g., groups and organizations) and nonhumans (e.g., computer software, mobile communication devices, and avatars). They discuss the use of ABMs to conceptualize these multiagent knowledge networks as complex systems and the conditions under which such networks are likely to self-organize.

The second strand of objectivist work includes research that aims to capture the dynamics of complex social collectives by examining organizational communication as a network of texts. Corman et al. (2002) argue for the benefits of using centering resonance analysis (CRA), based on a theory of communicative coherence and centering, to study complex organizational communication systems. In particular, they view CRA as “a flexible means of representing the content of large sets of messages, and assist in their analysis” (p. 159). According to them, the existing research methods such as ethnographies, conversation analysis, questionnaires, and computational models “are inadequate for the task of testing claims about complex organizational communication systems” (p. 159). The benefit of CRA, according to Corman et al., is in its ability to operate simultaneously across different scales of aggregation and to utilize the actual words people speak and write.

In their theoretical account, Dooley, Corman, McPhee, and Kuhn (2003) argue that to model and understand human systems, it is necessary to capture and analyze closely the actual discursive processes between human agents and to include in the analysis, discourse that happens in different locales simultaneously. They propose high-resolution, broadband discourse analysis (HBDA)

as a novel approach to theorizing discourse, and CRA as an appropriate tool to collect and analyze texts.

The final cluster of objectivist work approaches microlevel conversations with quantitative methodologies, mainly based on nonlinear dynamical systems theory (NDS). Pincus and Guastello (2005), for example, analyzed conversations, turn taking in particular, of a youth group therapy session, and found evidence of self-organizing social patterns. They also found significant correlation between the degree of patterning and the measurements of control, closeness, and conflict among group members.

The interpretivist work, in turn, draws mainly from the constructivist and interpretive foundations and can be divided into three general clusters: meaning and interpretation, narratives and language, and living activity.

The first cluster of work is rooted in social constructionist premises (e.g., Berger & Luckmann, 1966), and it views meaning and interpretation as essential characteristics of organizational communication. It also explicitly disengages itself from the traditional, transmission roots of communication, and connects with cultural aspects of organizations. Aula (1996), for example, applies chaos theory concepts to model and understand organizational communication. From his perspective, such an approach calls for a meaning-oriented communication perspective based on the premises of constructivism. Aula draws analogies to relevant chaos theory concepts (such as attractor, “butterfly effect,” and bifurcation) and argues that organizations can be understood as a diverse set of cultures that are in recursive interaction with an organization’s communications. He conceptualizes communication as two opposing forces that can be used as an effective tool to attain favorable outcomes for organizations by upholding tension and continuous struggle within organizations (i.e., edge of chaos).

In a similar vein, Salem (2002, 2009) emphasizes the meaning-making aspects of communication. He views communication as “an effort to make sense of an episode created by the process itself” (2009, p. 97), and he opposes the traditional approach that restricts communication as an exchange of messages between the sender and the receiver. He argues for the relevance of paying attention to chaos and complexity theory concepts such as a bifurcation point and an attractor, in order to achieve transformational, second-order change in an organization’s culture.

The second cluster departs from the meaning-centered work by explicitly stressing the importance of narratives, language, and discourse in constituting organizations. There are both macro and micro approaches within this cluster. Luhman and Boje (2001) argue that a narrative approach provides “a way to make concrete the concept of complexity science for organization studies” (p. 163). Drawing from chaos theory, they view organizational discourses as complex systems, and identify one’s storytelling power as an important attractor to allow

for predictability in organizations. Tsoukas and Hatch (2001) view complexity science's value "as a guide for interpretation" (p. 981), rather than it providing a theory with predictive validity. They advocate a narrative perspective on complexity, because "the system cannot speak for itself" (p. 989), but rather, one uses one's own language that is loaded with one's own goals and beliefs. Hawes (1999), in turn, uses insights from cybernetic theory in order to advance a posthumanist theory of communication. He advocates dialogics as a means to theorize narratives "that rethink and relocate human subjectivity as one-among-many as well as some-over-others" (p. 149). The narrative approach to complexity has gained wide attention within organizational studies (see special issue of *E:CO, Complexity and Storytelling*, 7(3-4), 2005).

Further, Leeuwis and Aarts (2011) view organizations as networks of actors, yet they place emphasis on discourses, representations, and storylines in achieving organizational change. In particular, they discuss the concepts of self-organization and attractor landscapes, and propose network-building, social learning, and conflict management as processes that communication professionals should pay special attention to in order to support innovation in organizations. Similar to Luhman and Boje (2001), they acknowledge the role of power in conceptualizing communication.

Micro approaches within this cluster refer to literature that focuses on the language-in-action, small "d" analyses (Alvesson & Kärreman, 2000). Isbell (2009) for example illustrates the potential and applicability of various chaos theory concepts to the field of conversational analysis. Moreover, he finds turn taking and topical shifting as "the locus of change" through which conversations become increasingly complex (p. 24). He argues that conversations are by nature chaotic systems, because they tend to be highly unpredictable, thus dealing with nonlinear dynamics, and that they involve various interplaying variables. According to Isbell (2009), chaos theory provides, "at the very least . . . new verbiage to talk about and fresh theoretical frameworks" (p. 23) to analyze conversations. Bloom (2001), in turn, views an argument as a chaotic system. He examines transcripts of classroom discussions and concludes with a representation of the argument's emergent structure based on elements from chaos theory (i.e., the argument as a self-maintaining dissipative structure).

The final cluster of interpretivist work differs from the first two by arguing for the importance of focusing on the present, living activity to understand dynamic processes of human interaction. Shotter and Tsoukas (2011) criticize the analytical-representational ("intellectualist") orientation to narrative and language-based theory building that aims to justify and explain social phenomena retrospectively and from an outside position. Instead, they advocate a relational-responsive perspective that aims at "working *from within* a relevant phenomenon" (p. 337; emphasis in the original). Their "ecological approach"

highlights the emergent features of human activities that arise from “relationality, contextual specificity, and reflexivity” (p. 344). They believe that the benefit of a complexity science approach to the study of social interaction nests in the “relational imagery” that complexity evokes, because it enables one to better deal with relational uniqueness and emergent change.

Similar to Shotter and Tsoukas, Hoffman (2008) argues for a perspective that focuses on the living present that “*never takes its eyes off interaction activity*” (p. 433; emphasis in the original). Hoffman draws from the work of Stacey, Griffin, and Shaw (Shaw, 2004; Stacey, 2001; Stacey, Griffin, & Shaw, 2000) and distinguishes the transformative strand of complexity science as “a profound break” from deterministic views of causality that dominate systems science. She views communicative interaction as embodied activity, which expands the conceptualization of sense making beyond one’s abstract thinking capacity. Developments in neuroscience (e.g., Damasio, 2003) point toward embodied aspects of human sense-making, which Hoffman argues is integral for communication scholars as well.

Table 3 *A Summary of Complexity Approaches in Organizational Communication Research*

Approach	Focus of Research	Representative Work
Objectivist:		
<i>Agent-based models</i>	Deduction of hypotheses Theory building	Contractor (1994) Contractor and Grant (1996) Monge and Contractor (2003)
<i>Text-as-a-network</i>	Analysis of large quantities of text Actual discourse	Corman et al. (2002) Dooley et al. (2003)
<i>Conversation analysis</i>	Self-organizing patterns in conversations	Pincus and Guastello (2005)
Interpretivist:		
<i>Meaning and interpretation</i>	Organizational change Conceptualization of communication	Aula (1996, 1999, 2000) Salem (2002, 2009)
<i>Narratives and language (macro)</i>	Storytelling power Philosophical examination Organizational change	Luhman and Boje (2001) Tsoukas and Hatch (2001) Hawes (1999) Leeuwis and Aarts (2011)
<i>Narratives and language (micro)</i>	Complexity of conversation Argument as a chaotic system	Isbell (2009) Bloom (2001)
<i>Living activity</i>	Relational uniqueness and emergent change Embodied sense-making	Shotter and Tsoukas (2011) Hoffman (2008)

1.2.3 CRITICISM OF COMPLEXITY APPROACHES IN ORGANIZATIONAL COMMUNICATION RESEARCH

Complexity approaches to communication research can be viewed to suffer from similar shortages as indicated within general organizational studies (see Table 5). However, communication research specific criticism can also be distinguished. According to Corman et al. (2002), research that explores complex systems of organizational communication suffers from two shortages.

First, organizational communication studies are typically limited to small-scale analysis. Conversation analysis, for example, is deft for studying specific communication practices, yet it is limited to micro-interpretations and, further, ignores parallel conversations at other times and places. Ethnography, in turn, is suitable for understanding complexity and is also a bit broader in scope than conversation analysis. However, it is limited to the local context of the ethnographer.

Second, the methods that are more apt for wider-range analysis suffer from limited understanding. For example, computer simulations, although able to handle large quantities of information, are not suitable for observing large quantities of communication. Moreover, they are typically geared toward hypothesis generation instead of descriptive analysis or hypothesis testing. Thus, they increase the need for follow-up studies and observations. Questionnaires are also broad in range, but they too suffer from significant shortages. Whereas “explanations of complex communication systems require accurate and detailed data about sequences of behavior” (Corman et al., 2002, p. 164), questionnaires are based on perceptions of communication behaviors, not the actual behaviors. Further, self-report data produced by questionnaires suffer from systematic biases (Corman & Bradford, 1993) and thus are not “isomorphic with communication behavior at the level of the system” (Corman et al., 2002, p. 164).

In sum, Corman et al. (2002) posit, “The problem, in a nutshell, is that we have some methods that are broad in understanding but restricted in range, and other methods that are restricted in understanding but broad in range” (p. 164). Thus, communication research has not been able to capture or test claims about what they consider the essence of complexity: the wide-range, organizational-level processes of dynamic communication systems.

The main criticism toward objectivist approaches to organizational communication concerns the conceptualization of communication. Corman et al. (2002) note “like other broad-range methods, simulations invariably gloss important discursive details by treating communication as an unproblematic transfer of information between simulated agents” (p. 164). It should be noted that communication scholars have accounted for the interpretive aspects of communication (e.g., Contractor and Grant, 1996) and are often reflective about the limitations of their approach. However, as Contractor and Grant (1996) note, their

self-organizing systems approach does not share the interpretive perspective's ontological and epistemological assumptions.

Hoffman (2008) in turn makes a remark concerning the literature framed within systems thinking (e.g., Contractor, 1999; Houston, 1999; Luhmann, 1990). According to her, systems approaches to complexity hold deterministic assumptions of causality, "supporting notions that we can control outcomes or, at the very least, manage uncertainty" (p. 427). She posits that human interaction involves embodied processes "whose character does not even remotely resemble linear motion" (p. 428). Although not criticizing complexity approaches explicitly in regard to communication, she notes that deterministic views of causality are present in complexity science framed within systems tradition.

Although the interpretivist complexity accounts to organizational communication can be viewed to suffer from the same shortages as the interpretivist organizational studies in general (see Table 5), Shotter and Tsoukas (2011) point out one specific criticism within the interpretivist approaches to communication research. They posit that interpretivist scholars often tend to be analytical and that they emphasize only the contents of language, although "There is more in the use of language than uttering words" (p. 335). They argue that the social constructionist approaches to language-based change in organizations represent "an intellectualist," analytical-representational account that views "new thinking to come out of old thinking through persuasion, cognitive or, discursive re-programming, or strategic interventions," whereas, from the relational-responsive perspective, they propose that "new thinking emerges from certain events that unsettle old ways of thinking and move individuals to start noticing new possibilities" (p. 345).

1.3 Social Complexity and Organizational Conflict Research

Complexity science approaches to the study of conflict have appeared rather recently. The roots of such approach have, however, been prevalent for a long time. Similar to the overall entry of complexity theory into organizational and organizational communication studies, the foundations of complexity approaches to organizational conflict research can be traced to systems origins. Within conflict research, complexity scholars have also drawn strongly from psychological origins similar to communication scholars.

1.3.1 THE ROOTS OF COMPLEXITY IN ORGANIZATIONAL CONFLICT RESEARCH

Systems theory perspectives on organizational conflict appeared more or less along with the more general approaches to organizations. In fact, conflict played an important role in various general systems approaches to organization (e.g., Katz & Kahn, 1966; March & Simon, 1958). Pondy (1966) built upon March and Simon's work, and identified four subsystems within which conflict may occur: informational, political, functional, and social. Conceptualizing organization this way allows us, according to Pondy (1966), "to describe and explain how one form of conflict in a given subsystem affects the conflict level in the other subsystems" (p. 246–247).

Although the early work can be characterized as representing the "hard" systems perspective, taking a rational, open systems view on organization, the "soft" systems perspectives were also introduced to the study of organizational conflict. Ruben (1978) introduced a systems view that focused on the adaptation of living systems with the environment. From this perspective, communication is pivotal in an organization's adaptation to its environment. Conflicts, in turn, are the discrepancies between the demands and capabilities of an environment and the demands and capabilities of a living system. Thus, conflict and adaptation are inseparable concepts. Self-reflexivity is possible because of the symbolic nature of human communication. The success of a conflict should be viewed based on how it serves a system's adaptive ends, over time, vis-à-vis its environment.

Finally, conflict scholars have also drawn from work that stresses the importance of human capacity for symbolic representation and interpretation in understanding the complexity and dynamism of personal and social phenomena. This work draws from the internal world and psychological origins (Vallacher et al., 2002), and builds on the work of scholars such as James (1890), Mead (1934), Cooley (1902), Lewin (1936), and Asch (1946).

1.3.2 COMPLEXITY APPROACHES IN ORGANIZATIONAL CONFLICT RESEARCH

Literature that can be counted to employ complexity science principles to organizational conflict research started to appear only in the 2000s. *Emergence: Complexity and Organization (E:CO)*, a journal devoted a special issue (2008, vol. 10, no. 4) to examine different approaches to integrate complexity science and conflict management principles. Although the work that has accumulated around organizational conflict utilizing the complexity perspectives is somewhat scarce, one can distinguish between objectivist-oriented and interpretivist-oriented work, although the latter is somewhat marginal in quantity.

The objectivist work can be categorized in two broad clusters: NDS and complex systems. The first cluster includes work from social psychology that focuses mostly on adopting the principles of NDS to the study of intractable conflict.⁴ Vallacher et al. (2010) proposed a dynamical systems approach as a promising framework to integrate the vast and fragmented literature on intractable conflicts into a coherent perspective that allows for prediction and development of testable propositions. From this perspective, the central tenet for conflict resolution is not how to solve the issues in conflict, but instead, “how to transform the system from the coordinated ensemble of dynamics perpetuating the conflict to a different coherent state that allows for benign (or positive) relations between parties” (Vallacher et al., 2010, p. 264). They consider fixed-point attractors as most relevant to understand the origins and maintenance of intractable conflicts. By attractor they refer to “a restricted range of mental states and actions that is commonly experienced by a person or a group” (p. 265).

Coleman (2006), in turn, views complexity science as a more effective approach to address intractable conflicts than “standard methods of conflict resolution such as negotiation and mediation” (p. 325). He proposes a meta-framework based on dynamical systems theory and outlines a set of guidelines based on Morgan’s (1997) *Images of Organization*, and Breunlin, Schwartz, and Kune-Karrer’s (2001) work on family therapy. More specifically, the guidelines “are ordered around a simple, iterative process of reflective analysis, guiding change, and using feedback” (p. 334).

Guastello (2009), in turn, examines the relationship between chaos and conflict. Also drawing from NDS, he presents examples of how different pathways to chaos can lead to some “prototypes of conflict situations” (p. 1). According to him, the substance of the conflicts can be extracted using empirical analysis and mathematical tools such as orbital decomposition, nonlinear regression, and simulation. The NDS applications emphasize the need for empirical verification, and represent the hard objectivist approach to complexity.

The second cluster includes work that leans toward the intra-system processes of complex systems (i.e., “the North American school”) in organizational conflicts. This work stems typically from management studies and takes an information-processing view of knowledge and communication. For example, Andrade et al. (2008) view organizations as complex adaptive systems whose fundamental properties, such as sensitivity to initial conditions, far-from-equilibrium states, nonlinear interactions, emergent self-organization, and coevolution across fitness landscapes, opposes the view of conflict as a dysfunction in organizations.

4 Although the NDS literature does not concern organizational context specifically, it is one of the most productive and developed strands taking a complexity approach to conflict, and thus it deserves attention here.

Their approach is primarily objectivist; that is, they refer to organizational agents as information processors. However, they do acknowledge the role of language and meaning making in the reproduction, renewal, and reproduction of organizations. As opposed to conflict reduction, they propose that managers should “encourage mindfulness, improvisation, and reconfiguration as responses to conflict that enable learning and effective adaptation” (p. 23). Samoilenko (2008), in turn, examines the ways in which an organization’s conflict environment could be managed during an organizational transformation. He conceptualizes organization based on chaos theory, and develops his propositions concerning management based on insights from complex systems theory. He concludes that conflict environment can be managed by manipulating the communication channels of an organization.

The interpretivist work consists of only one area of study, mental maps. The main advocate of this approach, Sword (2008), argues for the benefit of translating complexity science concepts “into a theory-in-use for conflict practice” (p. 10). She highlights the subjective aspects of human experience and proposes conflict mental maps, referring to “cognitive processes for making sense and meaning of situations and beliefs” (p. 11), as a possible method to utilize complexity insights in practice. Unsatisfied with the explanatory power of traditional conflict theory, Sword found the complexity approach helpful in understanding how weaker parties gained power, and how media contributed to the unfolding of three public conflicts.

Table 4 *A Summary of Complexity Approaches in Organizational Conflict Research*

Approach	Focus of Research	Representative Work
Objectivist:		
<i>Nonlinear dynamical systems</i>	Dynamic nature of intractable conflicts Patterns of chaotic events in conflicts	Coleman (2006) Vallacher et al. (2010) Guastello (2009)
<i>Complex systems</i>	Conflict as a fundamental property of CAS Manipulation of conflict environment via communication channels	Andrade et al. (2008) Samoilenko (2008)
Interpretivist:		
<i>Mental maps</i>	Translation of complexity principles into practice	Sword (2008)

Note: The table includes also relevant nonorganizational conflict research.

1.3.3 CRITICISM OF COMPLEXITY APPROACHES IN ORGANIZATIONAL CONFLICT RESEARCH

The general criticism of complexity approaches to organizational conflict culminates on three issues. First, the work that operates within organizational context often falls short in providing sufficient understanding of the rich dynamics of conflict. For example, Andrade et al. (2008) tend to concentrate mainly on the complexity aspects of organization, whereas conflict is treated as a secondary concept. Thus, they do not contribute much to conflict research per se. Second, the literature that treats conflicts as the primary target typically lacks an organizational focus. Scholars that develop an elaborated view on conflict and its management (e.g., Coleman, 2006; Vallacher et al., 2010) focus their efforts mainly on conflicts in broader societal contexts. Finally, the early work on conflicts has been mostly metaphorical and theoretical. Vallacher et al. (2010) propose that the next step should be to use the propositions and tools “to explore well-defined issues in concrete contexts involving real human conflicts” (p. 263).

Objectivist-specific criticism revolves around the limited conceptualization of communication. That is, communication is typically treated statically or narrowly, if not totally ignored in objectivist work. Samoilenko (2008), for example, bases his view of communication purely on the transmission and information-processing models. That is, he conceptualizes communication as a channel that is “*authorized and mediated by the organizational IS (information systems)*” (p. 43; emphasis in the original), thus espousing a functionalist ideology, in which the role of communication is to establish control and coordination.

In addition, those that acknowledge and stress the symbolic and constructive aspects of communication in conflict dynamics often rely on the transmission model of communication deep down. Vallacher et al. (2010), for example, conceptualize interpersonal influence as information sending (“a communication”; p. 266), although they stress the importance of the construction of shared reality in understanding human conflicts.

The criticism toward interpretivist work on conflict revolves around the fact that there is little, if any, work on organizational conflict from this perspective. Sword’s (2008) work can be viewed to represent such effort, although it concentrates on public conflicts and larger societal phenomena. Some interpretivist work (e.g. Leeuwis & Aarts, 2011) acknowledges conflict management as an important tool to support organizational functioning; however, they treat conflict as a secondary phenomenon. Thus, although the interpretivist, meaning-centered view has gained momentum within organizational and organizational communication studies in recent decades, such approaches within organizational conflict are somewhat lacking.

Table 5 *A Summary of the Major Criticisms of Complexity Approaches in Organizational, Organizational Communication, and Organizational Conflict Research*

	General	Objectivist	Interpretivist
Organizational	Faddish Limitedness of knowledge Invalidity of original concepts Unspecific use of complexity concepts Limited use of concepts Lack of empirical evidence	Lack of validity Lack of domain-specific (organizations) models Problems with computational modeling techniques and programs	Lack of reflexivity Lack of intellectual value added Imprecise use of metaphors/terminology Lack of theoretical advancement
Organizational communication	Limited in range Limited in understanding Unable to test claims about complex communication systems	Limited conceptualization of communication Determinist causality assumptions	"Intellectualist" approach
Organizational conflict	Limited view of conflict Lack of organization-specific literature Limited to a metaphorical and theoretical view	Static or narrow conceptualization of communication	Lack of literature

2. THE RELATIONSHIP OF THIS STUDY TO THE EXISTING LITERATURE

According to Maguire et al. (2006), the existing complexity literature in organizational studies can be divided into four bodies of work. *Introductions* includes work that introduces complexity science to organizational scholars, and makes claims about its implications to certain areas of organization studies. Most of this work is descriptive and not empirical in nature; that is, it hardly ever develops formal theories or models. The bulk of early work was especially introductory in nature. *Foundations* includes work that directly and explicitly addresses the issues of ontology, epistemology, and methodology (i.e., “philosophy driven” work). *Applications*, in turn, includes work that is “phenomena driven”; that is, it applies complexity science concepts to explain specific areas of organizational phenomena. Finally, *Reflections* refers to work that reviews the field.

The four studies comprising this account represent mainly the introductions and applications bodies of work. Moreover, the explicit purpose of Study 2 and Study 3 was to introduce social complexity to individual- and organizational-level conflict management in organizations. Both of the studies are conceptual in nature, although Study 3 proposes a framework of organizational-level strategies for conflict management. Study 4, in turn, falls within the applications cluster and aims to develop a framework based on empirical data. Finally, this study taps on the foundations and reflections mainly via this summary article. That is, this article discusses the philosophical issues and reviews briefly the relevant work within the three main fields (organization, organizational conflict, and organizational communication).

With regard to the philosophical underpinnings of complexity science (i.e., objectivist vs. interpretivist), this study represents an interpretivist ontological stance; that is, it emphasizes the interpretive and meaning-making aspects of organization. More specifically, this study can be viewed to overlap both the meaning and interpretation and the narratives and language clusters (see Table 2.) within the existing complexity and organizational communication literature. To be more specific, Studies 2 and 3 tend toward the meaning and interpretation cluster, in that they adopt Aula’s (1996) meaning-oriented communication view, and utilize the dual function of communication model. Although Study 4 also builds upon Aula’s dual function model, it also moves toward the narrative and language cluster. That is, it highlights the nature of organization as a discursive construction and one’s power that stems from narratives and storytelling.

3. LIMITATIONS OF THE CHOSEN APPROACH

Adopting an interpretivist approach to complexity entails a few critiques raised among complexity scholars. Above all, the metaphorical connotations of this study require a more thorough explication. Put simply, metaphor is a way to see and understand things in terms of another. Lakoff and Johnson (1980) argue that metaphor is more than a characteristic of language alone. On the contrary, “metaphor is pervasive in everyday life, not just language but in thought and action” (p. 3). Metaphors have attracted a considerable amount of attention also within organizational theory development. Metaphors help to reveal the assumptive ground of different approaches in organizational theory (e.g., Morgan, 1986, 1997) and organizational communication (Putnam & Boys, 2006). Metaphor analyses also help to understand the symbolic and dynamic aspects of organizational conflicts (Smith & Eisenberg, 1987) and challenge the practices of negotiation (Young & Schlie, 2011). Using metaphors in theory building has also triggered noteworthy criticism. Because metaphors highlight only certain aspects of the phenomena, they may fortify partial views of organizations (Tinker, 1986). Metaphors have also been criticized for promoting “sloppy thinking” (Carr & Leivesley, 1995) and trapping discourse in “ideological images that promote pseudo knowledge and maintain status quo power relationships” (Putnam & Boys, 2006, p. 543).

Two issues stand out from the criticism toward metaphorical approaches to complexity in organization studies. First, metaphors have been criticized for being too imprecise, thus resulting in confusion and misunderstandings (see e.g., Contractor, 1999; Maguire et al., 2006). One way to minimize the problem is to focus on different types of relationships in metaphor analyses (Putnam & Boys, 2006). Tsoukas (1993) identifies four types of relationships. *Abstraction*, which refers to relational similarities. *Analogies*, which are based on the links between sets of characteristics and structures of the source and target. *Literal similarities*, which transfer characteristics from the source to the target. *Mere appearances*, which function like embellishments, with only a modicum of commonality between target and source. Byrne (1998), in turn, distinguishes between different types of analogies. *Heterologous* refers to similarity of analytical functions when the contexts are different, whereas *homologous* refers to resemblance of context even though there would be no similarity of functions. *Literal similarity*, in turn, can be viewed to resemble Khalil’s (1996) “unificational likeness,” which refers to similarities “when they arise from the same law” (Khalil, 1996, p. 6).

In this study, complexity is adopted mainly as an analogy; that is, the principles of complex systems and organizations as discursive and meaning construc-

tions are viewed to have similar characteristics and structures. The parallel is made mainly on a functional level, whereas the context is acknowledged to differ between natural systems and human organizations. Thus, the analogic relationship can be further characterized as heterologous, not homologous, due to the different contexts (Byrne, 1998).

In addition to analogous resemblance, this study taps on other types of metaphoric relationships as well. The terminology and language of complexity is utilized on the level of abstraction, referring to certain relational similarities between the complexity concept and its manifestation in organization (e.g., “attractors”). An element of literal similarity (or unificational likeness) can also be detected; that is, organizations can be viewed as dissipative systems, the dynamics of which are self-similar “at whatever scale” (Byrne, 1998, p. 52).

Finally, the metaphorical work has also been criticized for a lack of rigor and theoretical advancement. Particularly the objectivist-oriented scholars have challenged the value of metaphorical work and called for rigorous use of computational models and methods (e.g., Sorenson, 2002; Contractor, 1999). This study aims to go beyond a “restatement of the things we already know in a different language” (Jen, 1994, p. 559) by grounding the used metaphors in rough constructs that can be utilized in further studies and creating language and concepts specific to the domain of organizational conflict. In particular, this study advanced two frameworks concerning conflict management (Studies 3^{and} 4). Although not propositional in the Newtonian “if, then” sense (Tsoukas & Hatch, 2001), the frameworks can be viewed to “decomplexify” complexity (Morin, 2007), by making generalizations and categorizations of the complex dynamics of human conflicts. The approach does not, however, represent a pure reductionist position (i.e., “the neo-reductionist school”; Richardson, 2011), which aims to uncover the over-arching laws and principles similar to the fundamental field equations in physics. However, this study also yields the “atheoretical, acritical, relativistic tendencies” of the other opposing extreme, “the metaphorical school” (Richardson, 2011, p. 374), thus echoing “the critical pluralist school” that highlights the importance of “critical reflection in grounding our models/representations/perspectives in an evolving reality” (p. 375). Thus, this study responds to organizational scholars’ (e.g., Eisenhardt & Bhatia, 2002) call for metaphorical applications that advance the field, with interpretivist ontology and objectivist epistemology (Maguire et al., 2006).

4. ABOUT THE STUDIES

The purpose of this section is to offer a concise explication of the four substudies that comprise the overall study. First, the relationships of the four studies are explicated. Second, each substudy is discussed briefly, concerning its contributions to the research questions. In addition, attention is paid to each study's view of some of the key issues within the field of organizational communication, including the relationships between organization and communication (e.g., Putnam, Phillips, & Chapman, 1996), conceptualization of organizational communication (Ruben, 1978), the relationship between communication and conflict (Putnam, 2006), and agency (Conrad & Haynes, 2000).

4.1 Study Relationships

The relationships of the studies are twofold. Although the studies are tied together by the common purpose and research questions to which the studies contribute, each study can also be viewed as a ground upon which the following studies were built (see Figure 1). That is, Study 1 revealed the ground from and on which alternative approaches could build. In particular, it warranted closer attention to the organizational context, conceptualization of communication, and assumptions underlying research and practice in organizational conflict. Further, it served as an entry to the field as well as an exploration and an experience of the most-used organizational conflict management model. This experience, in turn, facilitated the consequent examinations of the model (in Studies 2 and 4). It functioned as a critical force that derailed the overall study from its original trajectory. In other words, it provided data that was in stark contrast with much of the earlier research, and this in turn encouraged seeking for alternative approaches to organizational conflict, which resulted in the adoption of social complexity. This is illustrated in Figure 1, as a disconnection between Study 1 and the following studies.

Study 2 built on this ground and introduced the social complexity perspective to individual-level organizational conflict management. It also validated the feasibility of approaching organizational conflict management from a social complexity perspective altogether. In terms of ground for the next study, it served as a motivator to extend the scrutiny and introduction of social complexity to the dominant organizational-level model, conflict management systems.

Study 3, together with Study 2, solidified the researcher's position in the interpretivist ontology, and validated the feasibility of employing social comp-

lexity principles to organizational conflict management. Finally, Study 4 used the theoretical foundation highlighted by the first three studies as its starting point to develop a theoretical framework of managerial conflict influence based on empirical data.

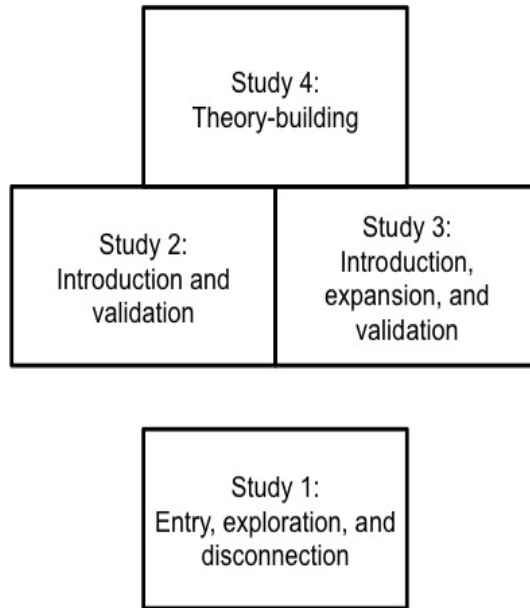


Figure 1 *Study Relationships and Functions*

4.2 Study 1

The purpose of Study 1 was to enter the field of organizational conflict management by applying and exploring the conflict style framework with empirical data. The conflict style approach was chosen, because it had been (and still is) the most used framework to study conflict behavior in the organizational context (Nicotera & Dorsey, 2006) as well as across cultures (Fink, Cai, & Wang, 2006). The study was conducted as a survey utilizing Putnam and Wilson's (1982) conflict style instrument, due to its organizational communication focus.

The study confirmed the practicability of the conflict style approach in identifying differences between people from different cultures. The study called into question the feasibility of making predictions of conflict behaviors and examining the variability of conflict management based on the dimensions of national culture, thus suggesting that a different approach is needed. In particular, the

study challenged the presumption that one's general cultural communication characteristics automatically correlate with one's conflict behavior. In fact, conflict behavior seemed to be in stark contrast with communication characteristics in general. Finally, the study prodded more questions and doubts concerning the conflict style approach altogether. That is, it casted a doubt on whether conflict management can be best understood based on the premises of a conflict style framework, that is, by examining self-reports about parties' concerns about conflict outcomes. Moreover, it motivated the researcher to critically examine the assumptions and communicative ground underlying the dominating approach of conflict management styles and to explore an alternative approach to organizational conflict with a follow-up study.

Communication in Study 1 follows the traditional sender-biased information-processing school that considers communication as a one-way transmission of messages. It is treated as a structural variable that mediates the effect of culture on conflict management (Putnam, 2006). The communication-organization relationship is left implicit in Study 1. Organization is, however, acknowledged in the survey scenario, in which the respondents were asked to imagine themselves in a superior-subordinate relationship in a group exercise, thus, suggesting a traditional, hierarchical composition of organization, in which communication takes place. Thus, the relationship can be characterized as "containment" (Smith, 1993), where communication assumes the position of ground or secondary subject, and organization is the figure or the principal subject (Putnam et al., 1996). Further, conflicts are viewed as isolated events, ignoring the contextual and systemic effects that conflicts might have. Study 1 does not theorize agency explicitly either. However, agents can be viewed to operate within the powerful forces of national culture, thus not have much room for choices or influence over the circumstances. Thus, agents are considered homogeneous and passive in nature.

4.3 Study 2

The purpose of Study 2 was to examine individual-level conflict management from a social complexity perspective. The motivation for the study stemmed directly from the unease with the assumptions underlying conflict management in Study 1. In particular, the assumptions concerning the linear, information-processing nature of communication as well as the reductionist views of conflict management and agency called for an alternative approach. The novel perspective of social complexity was deemed to provide such an alternative and, thus, was introduced to the study of informal, individual-level conflict management. The study was theoretical and introductory in nature; that is, it was one of the

first attempts to apply complexity principles to organizational conflict management as a communicative phenomenon, and to view a conflict style approach from this perspective.

The study conceptualized organizational conflict management as an interpretive communicative process, and applied Aula's (1996) dual function of communication model to understand this process. Conflict management was viewed essentially as the balancing of opposing forces, utilizing the two simultaneous components of organizational communication, dissipative and integrative. Four areas of assumptions (labeled as "conventions" in the study) emerged from the examination of a conflict-styles framework from a social complexity perspective. In short, social complexity assumes that the purpose of conflict management is to create suitable conditions for conflict interaction to take place instead of resolution of conflict. Further, conflicts cannot be totally controlled as assumed by the conflict style framework. Moreover, the outcomes may be unpredictable and disproportionate to the initial conditions as opposed to predictable and proportionate. Conflict styles, in turn, are considered to be flexible and fluctuating; that is, not stable as the conventional approach to conflict management assumes. In sum, social complexity was found to be based on drastically different assumptions concerning conflict management than those of the conflict style approach.

Thus, the conventional conflict style framework did not seem sufficient to account for conflict behavior in organizations. In addition, from a social complexity perspective, conflict management is based on constantly changing heterogeneous rules of microlevel interaction. This bottom-up position departs from the top-down approach of Study 1, in which national culture was considered as the major force regulating conflict management. Study 2 posits that an indirect approach to conflict management is required; one that aims to facilitate the communicative context of conflict interaction.

Study 2 represents an interpretive communication view as opposed to the transmission view taken in Study 1. In this view, communication is the prerequisite for all social life, including organizations. Thus, communication becomes the figure and the primary object, instead of organization. Organizations are viewed as meaning structures that are created, maintained, and enacted in the ongoing interactions of heterogeneous agents. Thus, the organization and communication are considered equivalent. *Organizational communication* is defined as an ongoing process through which people together make and share meanings within a particular organizational context (Aula, 1996, 1999, 2000). According to the dual function of communication model, communication is characterized by two simultaneous counter forces, dissipative and integrative, by which organizational complexity is managed. From this perspective, communication and conflict are codeveloped; communication is equivalent with

conflict. According to Putnam (2006), the relationship is interpretive; the two constructs are not viewed as separate but as mutually constituted. Conflicts are considered as natural and inevitable communicative events. They are also viewed as permeable and systemic, as opposed to isolated events, as viewed by the conflict style framework.

Agency, in Study 2, is located in the interactions and connections, and further, all organizational agents are equal components of the system. Agency is not, however, nonexistent. Instead, the emphasis on meaning making means that agency is continuous, and it stems from one's ability to create and translate meanings and voice opinions.

4.4 Study 3

The purpose and motivation for Study 3 was to extend the social complexity perspective on organizational conflict management to include the organizational level. Similar to Study 2, the approach was theoretical in nature and was focused on examining conflict management from an interpretive communication perspective, as advised by the social complexity perspective. Yet, this time Aula's dual function model of communication was supplemented with the arena model, which was deemed to be useful for understanding the organizational level as a whole and for drawing attention to the neglected areas of research (i.e., spontaneous arenas).

Similar to Study 2, the social complexity view was contrasted with the dominant conflict management model, conflict management system (CMS). CMS was found to be based on a limited set of assumptions concerning conflict communication, purpose, control, and options. From the social complexity perspective, conflicts are always characterized by both integrative and dissipative elements of communication, whereas the CMS only assumes the integrative element. Similar to the conflict style framework, the purpose of CMS is to reduce conflicts, as opposed to social complexity, which highlights the need to facilitate suitable conditions. CMS is based on the notion of objective, personified, and authoritative control of conflicts, which is not possible or feasible from the social complexity perspective. Instead, control, structure, and order are shaped in and emerge from the interaction of all participants in a conflict. Finally, CMS typically provides only institutional options to address conflicts, whereas the social complexity approach stresses the need to also include spontaneous options. Thus, CMS seems insufficient to address the complexity of organizational conflicts. Moreover, it seems insufficient to reduce the negative effects – not to mention harnessing the positive effects – that conflicts have for organizational functioning.

Study 3, as well, proposed a tentative framework of organizational-level conflict management strategies in organizations. Four strategies, based on the communicative and circumstantial aspects, were identified: consolidating, suppressing, shaking, and engaging. CMS was found to represent only two of the identified strategies (consolidating and suppressing) ignoring the other two. In conclusion, CMS was deemed to be more flexible and versatile to address the complexities of organizational conflicts; that is, to also cater to the dissipative aspects of conflict communication and spontaneous arenas.

In all, Study 3 follows the communication view of Study 2; that is, communication is conceptualized as an ongoing process of meaning making, the outcome of which is not a linear transmission of information, but a nonlinear production and sharing of interpretations (Aula, 1999). Organizational communication is viewed to take place in communicative arenas where the communication processes function both top-down (institutional arenas) and bottom-up (spontaneous arenas). From this perspective, communication is the primary object and a prerequisite for organizing. Thus, communication and organization can be considered as equivalents. From this perspective, the communication-conflict relationship is – similar to Study 2 – interpretive. Agency follows Study 2 as well; that is, it highlights an active and constructive role of an agent.

4.5 Study 4

The purpose of Study 4 was to reveal the ways in which managers influence conflict interaction in organizations. The main motivation for the study stemmed from an urge to explore conflict management from a social complexity perspective, based on data from “the real world.” Yet, this time a qualitative approach was chosen to better address the meaning-based ontology suggested from Studies 2 and 3. To specify, one was intrigued to explore how managers influence conflicts in organizations. Whereas influence has been typically left to a secondary role in organizational conflict research, it is prominent and relevant within the organizational-complexity literature. Literature concerning conflict styles and third-party intervention were reviewed and found to frame influence mainly as direct and outcome-oriented. Thus, guided by an interpretive lens on communication, 30 people in managerial positions were interviewed, and their talk concerning conflict and conflict management in organizations was analyzed. The talk was treated as evidence of the ways in which managers influence conflict interaction in organizations.

The study revealed two dimensions according to which managerial conflict influence can be categorized: communicative influence and directness. Based on these dimensions, six types of managerial influence were suggested to be in

play in organizational conflict: masterminding, prodding, containing, cultivating, overseeing, and acknowledging.

Further, the study extended the examination of individual-level conflict management to include the dominant third-party intervention frameworks, which, similar to the conflict style approach, were deemed as insufficient to explain and describe conflict behavior in organizations. The study also suggested that scholars should pay attention to more sophisticated ways of theorizing “avoidance,” present in both conflict styles and some of the third-party frameworks, under which all nonconfrontational tactics and strategies of conflict management have typically been collapsed. However, the study suggests that the numerous confrontation strategies that have been identified could be viewed from an influence perspective, possibly resulting in a more succinct view of the variety.

Study 4 follows the two previous studies, in that it takes an interpretive view on organizational communication; however, it tends more strongly toward the pure discourse perspective of organizational communication. Thus, organization is viewed to be particularly dependent upon conversation, which is also the primary element of organizing. This represents specifically “the becoming orientation” to organizations as discursive constructions (Fairhurst & Putnam, 2004). The material and physical aspects of organization are also acknowledged as “metamessage” (Putnam, 1986), thus yielding from the “extreme social constructionist” approach (Robichaud, Giroux, & Taylor, 2004). Organizational communication, in turn, is viewed as a process of enabling and constraining the emergence and evolution of competing voices and interpretations in organizations. From this perspective, communication and conflict are inseparable and mutually constituted, thus following the interpretive view (Putnam, 2006). Agency, in turn, is conceived as both active and passive. That is, people have the ability and capability to act, construct knowledge, and exert power via discourse and language. However, agents differ in their power due to their position and role in organizations. For example, managers’ stories and meanings have more “sticking power” compared to those of some other agents of the organization.

5. A SUMMARY OF THE RESULTS

The purpose of this study was to explore an alternative approach of social complexity to organizational conflict management and the implications and possibilities that such an approach can offer to the study of conflict management with a special focus on the role of communication. In particular, the aim was to contribute to the three research questions. In this section, the results of the study are summarized and conclusions are drawn from it.

5.1 Research Question 1

How can organizational conflict be understood and explained as a communicative phenomenon when viewed from a social complexity perspective?

This study proposes that to view organizational conflict from a social complexity perspective insinuates a constitutive role of communication processes in organizing (e.g., Putnam & Nicotera, 2009). From this perspective, organizations are viewed as discursive constructions (Fairhurst & Putnam, 2004), which positions communication as the producer of organization; thus, the two concepts can be viewed as isomorphic (Putnam et al., 1996).

This view of organization as a communicative entity can be further characterized by the metaphor of performance (Putnam and Boys, 2006). From this perspective, organizations are viewed “as dynamic, chaotic, and nonlinear systems in which communication acts recursively to produce and reproduce the system” (Putnam & Boys, 2006, p. 549), thus placing emphasis on connections, self-organization, and emergence as inherent organizational characteristics. This perspective highlights organizing as a microlevel, bottom-up process where people enact the rules, structures, and environments via communication. Communication, in turn, is characterized as “ongoing, dynamic, reflexive and an interconnected process” (p. 550). For example, work on self-referential systems and organizational communication (e.g., Contractor, 1994; Hawes, 1999) can be viewed to represent this metaphor.

The social complexity view challenges the common conception of organizations as harmonious, equilibrium-seeking entities. On the contrary, conflicts are considered as natural fluctuations in the ongoing interactions between heterogeneous agents, and as helping to maintain the desired instability and tension in organization (Andrade et al., 2008). This view is in line with the contradiction metaphor (Putnam & Boys, 2006), which presumes that tensions and con-

radictions underlie human organizations. Thus, contradictions are “an inevitable outgrowth of the complexity and ever-changing process of organizing” (Putnam & Boys, p. 562). Communication, in turn, mediates the struggle “by holding these forces in tension with each other” (p. 562). Communication is essentially a micro process, the purpose of which is to maintain the dialectical tensions, thus demonstrating the interconnectedness of contradiction and the performance metaphor.

Finally, Aula’s dual function of communication captures the essence of how conflict management is viewed in this study. In particular, it illuminates how conflict management operates as an enabler and constrainer of multiple voices and meanings in organizational conflicts. Thus, conflict can be viewed as an ongoing communicative process that is characterized by different views and interpretations, thus echoing the soft systems perspective, where the interpretations of problem situations, such as conflicts, become an integral part of the system and focus of study (Checkland, 1994). Unlike most conflict research, however, conflict is not limited to the manifest part only, but is an open-ended endeavor that is not reduced to the active, direct, and confrontational characteristics of conflict only.

The main focus from the social complexity perspective is on the broad patterns as opposed to micro-discourse analysis (big “D” vs. small “d” discourse). This view acknowledges that some agents have advantages over others in exercising discursive power and hegemony (Robichaud et al., 2004). Thus, instead of marginalizing all nondiscursive aspects, it acknowledges the concept of power as playing an important role in the dynamics of organizational conflict. This view resonates closely with Putnam and Boys’s (2006) voice metaphor, which draws attention to power relationships and inequalities of organizational life.

In sum, these three frames can be viewed to form the layered communication view proposed in this study. Utilizing Putnam and Boys’s (2006) metaphors, performance represents the basis for organizing, which is fundamentally a bottom-up communicative process. Contradiction in turn builds on this view of communication as a micro-level process by pointing out how these processes function to hold the tensions between the opposing forces that are natural to organizations, thus augmenting the underlying organizing view as well as characterizing the nature of conflict in organizations. Finally, the voice metaphor draws attention to conflict management as a communicative process that constrains and enables multiple voices and meanings in organizational conflicts on an ongoing basis.

5.2 Research Question 2

How can conflict management be represented as a communicative phenomenon when viewed from a social complexity perspective?

As noted above, the social complexity view of conflict management is argued to center on the notion of dual function of communication, both on individual and organizational levels. On an individual-level, the dual function refers to the tension between enabling and constraining the inclusion of various views in conflicts. In addition, the social complexity perspective stresses the importance of directness of influence on individual-level conflict management. That is, one's influence can be further modeled according to the directness of influence (direct, indirect, distant) resulting in six ideal types of influence: masterminding, prodding, containing, cultivating, overseeing, and acknowledging (see Table 6).

Table 6 *A Typology of Managerial Conflict Influence*

	Communicative influence	
Directness	<i>Constraining</i>	<i>Enabling</i>
<i>Direct</i>	Masterminding	Prodding
<i>Indirect</i>	Containing	Cultivating
<i>Distant</i>	Overseeing	Acknowledging

On the organizational level, the role of dual function is twofold. The dissipative and integrative aspects are viewed as inherent to conflict interactions and should thus be acknowledged by the organizational-level strategy. On the contrary, the circumstances, in which conflict interactions take place, are determined by the level of dissipative or integrative communication. That is, conflicts are played out on communicative arenas, which are linked to the cultural ambiances of institutional (high level of integrative communication) and spontaneous (high level of dissipative communication) surroundings. In particular, four strategies were distinguished: consolidating, suppressing, shaking, and engaging (see Table 7).

Table 7 *A Framework of Organizational-Level Conflict Strategies*

	Communication	
Circumstances	<i>Integrative</i>	<i>Dissipative</i>
<i>Institutional</i>	Consolidating	Suppressing
<i>Spontaneous</i>	Shaking	Engaging

In sum, the representation of organizational conflict management from the social complexity perspective centers on three main variables: the dual function of communication, circumstances, and directness. A synthesis of the individual

and organizational-level models is represented in Figure 2. The opposing arrows on both individual and organizational levels illustrate the dual function of communication. The swirl between the arrows, in turn, illustrates the mutual causality between individual and organizational levels of conflict management. That is, individuals on the individual level both construct and are constrained by the organizational-level strategies via their interactions.

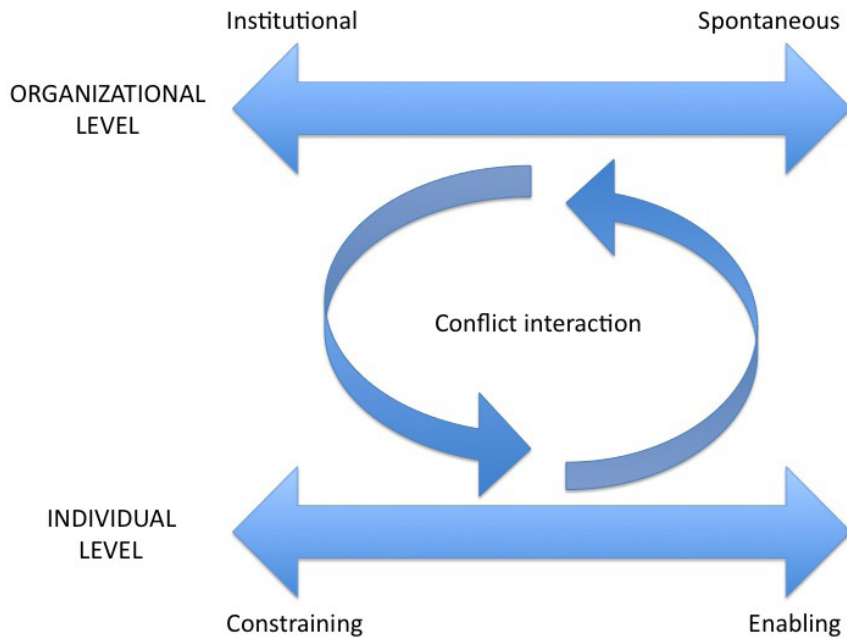


Figure 2 *A Synthesis of Individual- and Organizational-Level Frameworks*

5.3 Research Question 3

Which implications does this view have on the dominant conflict-management models?

In general, this study concurs with the notions that the dominant organizational conflict management models are based on a positivist worldview that emphasizes reductionism, rationality, control, and predictability (e.g., Hughes, 2004; Nicotera & Dorsey, 2006). In particular, both the dominant individual- and organizational-level models were found insufficient to account for conflict behavior and interaction as well as to address conflicts in organizations.

On the individual level, the main implication concerns the limited conceptualization of avoidance. Instead of labeling all passive and nonconfrontational behaviors as “avoidance” (as in the conflict style framework), this study proposes that total avoidance is not possible, and that even when avoiding conflicts (i.e., not confronting them directly), managers may influence conflicts (in at least four ways: containing, cultivating, overseeing, and acknowledging). Thus, avoidance requires a more thorough conceptualization.

However, based on the social complexity perspective, four distinct categories for direct engagement might not be necessary in the conflict style framework. That is, the proposed managerial conflict influence typology suggests that direct engagement consists of merely two simultaneously functioning components, enabling and constraining, which determine the dynamics of conflict interaction together with indirect and distant influences. Although influence and styles are not synonymous, the conceptualization of direct influence warrants further examination.

Third-party intervention models, in turn, are typically built upon two dimensions concerning conflict interaction: control over outcomes and control over process. From the social complexity perspective, the outcome dimension is less relevant, because control over specific outcomes is not feasible altogether. The process dimension, however, seems interesting. In particular, it would be useful to examine how managers influence the process; that is, enable or constrain the inclusion of various views in conflict interaction. In all, third-party intervention models should cater to a broader conceptualization of one’s influence. For example, Pinkley, Brittain, Neale, and Northcraft’s (1995) dimension “dispute handled publicly versus privately” represents an interesting detachment from the assumption that what is essential to managing conflicts is what happens at “the negotiation table” (Lewicki et al., 1992), thus highlighting the importance of the context of conflict management. Similarly, Kolb and Putnam (1992b) highlight the need to explore the private and informal aspects of conflict in organizations.

The organizational approach of CMS seems to take a very constricted view on organizational conflict management. That is, it acknowledges and recognizes merely the conflicts that fit the formal procedures and arenas such as grievances, arbitration, and mediation. This line of research is still a rather recent development (see Lipsky & Seeber, 2006), thus it warrants critical examination so that it does not exclude the other spontaneous aspects of conflict management from its repertoire. In its current form, it rather downplays, suppresses, and skews the reality and nature of organizational conflict, which, as Kolb and Putnam (1992b) note, does not consist merely of the legal and formal conflicts, but quite the opposite. Thus, it is argued that CMS should include the spontaneous and informal arenas in order to match the complexity of organizational conflict.

6. LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The purpose of this study was to provide an alternative view of organizational conflict management based on a communicative social complexity perspective. One of the major factors in weighing the success and shortages of this effort is to acknowledge the novelty of adopting this approach. That is, while there is only a small body of literature combining organizational conflict and social complexity, this is practically the first study to add an organizational communication aspect to the combination. Thus, the study is highly tentative and introductory in nature, and in the future, there will be a need to build upon this work and validate its premises.

There is a specific need to conceptualize the proposed frameworks of conflict management in more detail. One needs to understand better, for example how, exactly, the communicative enabling and constraining function on (and across) direct, indirect, and distant levels of influence. The current study was based on interview data that could not address these issues in detail. A closer analysis of actual conflict situations or naturalistic conversations could shed light on this issue. On the organizational level, there is a need to examine how the specified organizational level strategies function and what the benefits – if there are any – of utilizing the spontaneous arenas in conflict management. Approaching these questions with, for example, case studies seems like a fruitful approach to reveal such complex dynamics.

Answering these questions could also facilitate the use of computational techniques in further efforts to develop the frameworks toward theoretical models. Although positivistic in its paradigm, “computer modeling can lead to several important insights into the dynamic implications of social scientific theories” (Contractor, 1999, p. 162). However, such models need to be based on content-specific generative mechanisms that are drawn from social scientific theories. Thus, a next step could be to distill such concrete conflict-specific mechanisms for computer simulations. Computer simulations themselves do not provide empirical evidence of actual conflict dynamics, but they could help in generating hypotheses for further examination.

Another shortage of this study is its inability to consider “the real dynamism” of complex systems, which would require the examination of longitudinal and multilevel data (Corman et al., 2002) of organizational communication. This perspective seems particularly relevant for organizational conflict research, which involves complex systems of interaction. One way to approach this is Corman et al.’s (2002) CRA, which is capable of handling large quantities of textual data. They propose CRA as a useful approach to aid in a fine-grained

assessment of interaction patterns in, for example, structural-change studies. Such an analysis could include various types of discourse (i.e., memos, interviews, notes, and other unrelated texts), and could reveal changes in organizational members' conflict-related discursive structures over time.

Further, while highlighting the need for systemic approaches, this study approaches the systemic nature of conflict only theoretically. In future studies, examining the inherently dynamic and systemic character of conflict and its management empirically seems warranted. Labianca, Grass, and Gray (1998), for example, utilized social network analysis (SNA) and found that perceptions of intergroup conflict are linked to the social network context in which the conflict is embedded. Smith (1989), in turn, utilized a case study approach to illustrate how interpersonal conflicts move around in organizations through the joint dynamics of "triangulation" and "splitting." Both SNA and case studies seem to be appropriate ways to bring the systemic nature of conflict in the forefront of organizational conflict research.

The social complexity perspective also calls into question the dominant conflict management models for describing and prescribing one's conflict behavior and management. The models could be tested, and new models could be developed, based on the view that highlights meaning and context. Focusing, for example, on the others' interpretations of one's conflict style could facilitate the shift from conflict behavior as an internal characteristic toward a more interpretive view. Social complexity also encourages the examination of conflict beyond the manifest, "at the table," parts of conflict. Conflict styles could thus be examined prior and after a particular conflict or beyond a particular conflict altogether. Finally, the social complexity approach promotes assessing conflict outcomes beyond the immediate and obvious parties. This could be accommodated, for example, by paying attention to the effects that certain conflict styles have for the larger whole (work unit, organization, etc.), the consequent interactions, and the overall climate.

Finally, as mentioned above, there is a need for a broad conceptualization of conflict from a social complexity perspective. In particular, conflict management could be extended toward the management of tensions, contradictions, and paradox in organizations (e.g., Smith & Lewis, 2011; Clegg, 2002; Ashcraft, Kuhn, & Cooren, 2009). Compatible with the social complexity view, these studies consider tensions and contradictions as an inherent part of organizing and as the natural causes for conflicts (e.g., Plowman & Duchon, 2007). Thus, it would be fruitful to broaden the view of conflict management to tensions and how people deal with them. Although this perspective is not all that new to organizational communication and conflict scholars (e.g., Putnam, 1986), the time seems ripe for taking a broader view on conflicts. That is, although there is a need to identify more ways to deal with opposite forces through communication (Barge,

Lee, Maddux, Nabring, & Townsend, 2008), currently, dialogue is offered as “the general panacea for managing dualities” (p. 367). Moreover, the current changes in organizational life provide interesting and visible settings for the study of tensions. For example, in Finland, the privatization of public services as well as the clash between the “old boy networks” and the calls for transparency in business practices are fertile phenomena to examine the tensions that are in play, as well as how those tensions are managed. These tensions could be examined via case studies or interviews in relevant organizations such as ideologically driven organizations (e.g., foundations, interest groups) and state governed companies.

The main purpose of the following, final section of the summary article is to explicate the contributions this study makes to the existing organizational conflict research, and to critique the existing literature based on this study. Contributions to the social complexity and organizational communication literature are also discussed briefly before moving on to the final conclusion.

7. DISCUSSION AND CONCLUSION

Most past research on organizational conflict management has centered on few dominant models that have directed the development of the field in theory and in practice. Although the strong concentration of research on a few models has undoubtedly benefited the field by providing common focus, there have also been costs to it. That is, a plethora of research has accumulated upon a limited set of assumptions and attention has been drawn only to certain aspects of conflict management, while other aspects have been left to a lesser attention. Moreover, there has been a call for approaches that depart from the positivistic, linear, and reductionist views of communication and conflict. This study answers this call by exploring the possibilities and implications that a social complexity approach has to offer for the theory and practice of organizational conflict management. This study contributes to the existing research on four counts.

First, this study provides a step toward a discursive approach, which “given the field of organizational communication’s most recent theorizing of the very nature of organization as communicatively constituted . . . is both overdue and most promising” (Nicotera & Dorsey, 2006, p. 318). This study provides a description of a communicative view of organizational conflict, and it lays out a three-layer view of organizing, conflict, and conflict management. Moreover, this study provides representations of conflict management on both individual and organizational levels based on this view. This study does not, however, examine naturalistic conflict interaction, but rather, focuses on the broad discursive patterns (Alvesson & Kärreman, 2000). This perspective highlights conflict management as a continuous process, the purpose of which is to enable and constrain multiple voices and interpretations in organizations, which resonates with critical discourse studies’ focus on the role of language and its relation to power (Grant, Hardy, Oswick, & Putnam, 2004).

Second, this study provides an alternative view of context in organizational conflict. Context, in past conflict and communication research, has been viewed, for example, via gender and race (Burrell, Buzzanell, & McMillan, 1992; Shuter & Turner, 1997), and as the organizational and professional context of a healthcare organization (Jameson, 2003). This study, in turn, proposes that conflicts are embedded within communicative circumstances; that is, conflicts are played out on communicative arenas, which are linked to the cultural ambiances of institutional (high level of integrative communication) and spontaneous (high level of dissipative communication) surroundings. This perspective draws attention especially to the conversational context (Ford, 1999), upon which people make interpretations, act, and make decisions.

Third, this study caters to the call for relational, nonindividualistic approaches to organizational conflict management. In fact, this study highlights the systemic nature of conflict in organizations. *Systemic*, from the social complexity sense, does not however refer to the conservative, mechanistic meaning of the concept, but rather “the dynamics of complex systems are inherently dynamic and transformational” (Byrne, 1998, p. 51). Whereas conflict research has typically adopted an essentialist position (Nicotera & Dorsey, 2006) that assumes “pre-theoretical characteristics or dispositional interests” (Bousquet & Curtis, 2011, p. 48), one of the core benefits of complexity is its promotion of relational and processual thinking that stresses organizational patterns and networked relationships. Thus, attention is drawn away from individual characteristics and psychological constructs toward connections and the systemic characteristics of conflict. Although most research focus on “at the table” or face-to-face interactions (see Volkema, Bergmann, & Farquhar, 1997, for an exception), this study views conflict management as an ongoing process, highlighting the importance of informal and “away from the table” conversations. From this perspective, all conflicts may have significant consequences for the organization as a whole. Thus, this is in stark contrast with the dominant approach that views conflicts as isolated and individually centered events.

Fourth, this study contributes to the call for taking a broader view of conflicts. That is, this study did not limit the examination to mere disagreements as most organizational communication and conflict research (Nicotera & Dorsey, 2006). The two theoretical articles (Studies 2 and 3) approached conflicts as any natural fluctuations in the ongoing interactions between heterogeneous agents, thus not limiting the examination to the manifest part only. This study also allowed the participants (in Study 4) to pursue the themes they wanted in their interviews, and did not limit the analysis to particular types or stages of conflict.

In light of this study, the dominant models on both individual and organizational levels – while extremely important and influential – give and reinforce a biased view of conflict management. In particular, they view conflict management merely as microlevel confrontation, either as one-to-one or third-party intervention in face-to-face settings. Organizational-level approaches in turn are still in their infancy, although the CMS model has generated some literature. What is common to the approaches on both levels is their positivistic focus on control, authority, and formal processes. In other words, the dominant organizational conflict management models are characterized by and typically focused on suppressive, resolution-oriented, and reactive policies and processes.

The social complexity approach provides a set of assumptions and principles that stand in stark contrast to the dominant models. From this perspective, managers’ concerns about the process or outcomes in isolated, manifest conflicts may not be the best source to understand organizational conflict management,

as the vast amount of research implies. Attention should instead be paid to the emergence of meanings and various perspectives in conflict interaction, which are closely related to the power of language and discursive aspects of organization. On the organizational level, the formal processes and channels hardly represent the veracity of conflict management as implied by CMSs literature. By taking this perspective seriously, both researchers and practitioners could find that the informal systems and arenas prevail in the management of most organizational conflicts.

Although this study contributes mainly to organizational conflict literature, it also makes a contribution to the social complexity literature. In particular, this study answers the call for framework development and empirical analysis within the social complexity literature. Moreover, while most social complexity literature takes an objectivist approach, this study contributes to the less dominant research area, the interpretivist literature. This study also answers the plea in organizational communication literature for new perspectives and alternative metaphors of organizing. In particular, this study introduces social complexity as a metaphor to understand organizing as a bottom-up communicative process, conflicts as natural tensions underlying organizations, and conflict management as an enabler and constrainer of multiple voices and meanings in organizational conflicts. Thus, while there have been concerns about the isolation of different research camps in organizational communication (Putnam & Boys, 2006), the social complexity approach represents the trend of infusing different perspectives.

In conclusion, while organizational communication scholars have moved rapidly toward interpretive, postmodern, and critical studies, organizational conflict research has been more or less rooted in the positivistic, transmission tradition of communication to date. This study offers social complexity as an alternative perspective to examine conflict and conflict management as communicative phenomena in organizations.

Social complexity is treated essentially as a metaphor to develop understanding and representations of conflict management and to reexamine the dominant models based on this lens. This approach to organizational conflict seems fruitful for at least a couple of reasons. First, it promotes conflict as one of the primary phenomena in organizations and organizing; that is, it considers organizations as networked systems, consisting of heterogeneous individuals with multiple voices and interpretations. Thus, tensions and conflicts are natural and essential parts of an organization and foci of study. Second, it considers communication as an inherently interpretive process, which is compatible with the pleas for more dynamic views of communication and conflict. In particular, this study takes steps toward an interpretive and discursive conceptualization of communication in organizational conflict.

Finally, this study represents one of the first steps to introduce social complexity in organizational conflict studies and the first step to utilize a purely communicative approach within this realm, thus tying together the three areas of research – organizational communication, organizational conflict, and social complexity – that have ignored each other, or at best, have referred to each other only on an implicit level. This study suggests that the three areas have a lot in common and that, in the future, there is a good reason to explore and broaden the common terrain.

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