The Enactment of Learning and Knowledge Creation: A Study of Hospital Leadership Group Interaction

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Dedication

To my father, James P. Bremner, for igniting my passion to make things better

and

to my grandson, Brennan Matthew Davis, for all you will become and accomplish

Acknowledgments

The writing of this dissertation has been an act of faith in myself. I am realizing this moment because of the acts of love and support of so many people.

I want to acknowledge with gratitude Dr. David Schwandt, who has taught me to be unafraid of what I don't know and to experience ambiguity and confusion without looking for a quick way out, but rather trusting that with attention and effort understanding will emerge. I thank you for the unending hours you spent reading and rereading my work, listening patiently as I sorted through and grappled with ideas and meaning, and for engaging in the learning conversations from which this document has emerged. The unintended consequence of my association with you has been the observation of your constant selflessness and generosity. What has been made clear is that the learning I've received is meant ultimately to serve others, and I will remain inspired by you to do so.

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I will never have the words to express the love and admiration I have for each member of my family. My heartfelt thanks goes to my son, Matt, for your calm and steady presence, always there whenever I called; to his Emily for all the joy you have brought to our family; to my daughter, Rebecca, who asked “How can I help you, Mom” and then she did, over and over in countless ways, which saved me and kept me going more than you will ever imagine; to my son, Patrick, who inspires me and teaches me

every day what it means to commit to making something better; to my grandson, Brennan, for the pure delight that you are and the hope that you herald.

The final word of thanksgiving goes to my husband, Jim, who has been the most constant partner anyone could ever hope for. Your strength at the beginning gave me the courage to risk, and the steadfastness of your love throughout the process has heartened me to achieve this moment.

Abstract of Dissertation

The Enactment of Learning and Knowledge Creation:
A Study of Hospital Leadership Group Interaction

The ability of hospital leadership groups to collectively learn and build knowledge is critical to the competent and safe delivery of healthcare in the United States today. This study sought to contribute to the development of process theory on hospital leadership group learning by examining the *dynamic interactive processes* that enact learning and knowledge creation. A qualitative multicase study approach was used, relying on semistructured interviews and observations to collect the data and utilizing content analysis and conversation analysis to study the data.

The study of hospital leadership groups was based on an application of structuration theory (Giddens, 1984), which suggested that learning and knowledge creation could be studied by identifying the recursive patterning being enacted through the medium of language in the mutual shaping of group interactions and structures. The organizational learning systems model (OLSM) (Schwandt, 1997) provided another way to understand the complexity generated in dynamic interactive process related to learning and knowledge creation.

The study found that the dynamic interactive processes enacting learning and knowledge creation were generated in turns of talk and could be identified in the mutual shaping of structure and action reflected through the structurating properties of signification, legitimation, and domination. In addition, the study found that the juxtaposition of the OLSM with structuration, the ongoing recursive shaping between the subsystems and the interchange media, provided a way to capture the learning system enacted within the dynamic interactive processes of the leadership groups. The findings

suggested that the talk in interaction within each leadership group shaped an approach to learning that tended toward exploitation or exploration (March, 1991).

The conclusions are oriented around the three properties of structuration: (1) communicative properties are reflected in concluding that talk in a group matters, that each turn of talk shapes what is to come; (2) normative properties are reflected in finding that group norms shape and are shaped by member interactions; (3) power-relating properties are reflected in finding that the distribution of power in a leadership group shapes the level of collective efficacy experienced by group members which, in turn, shapes member engagement and participation.

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CHAPTER 1:

INTRODUCTION

Arriving at a new conclusion, becoming aware of an emerging question that hasn't yet been asked, recombining bits of available information into a new framework, hearing for the first time about a novel approach to an old nemesis—these experiences of learning and creating new knowledge can make the work of a leadership group interesting, innovative, transformational, and motivating. This research study examined how the interactions in a leadership group link in such a way that these learning moments are possible.

Structuration theory (Giddens, 1984) has provided a way to conceptualize the enactment of learning and knowledge creation in a leadership group. With the additional support of the organizational learning systems model (OLSM) (Schwandt, 1997), this study examined the dynamic interactive processes in a leadership group that enact learning and knowledge creation within the group.

The context for this study was hospital leadership groups in which the recursive patterns of interaction were manifested in the leadership group member descriptions of the group process and in the actual interactions among group members during formal meetings. This chapter provides a conceptual framework for the study. It includes a discussion of the problem, the research questions, the significance of the study, an overview of the methodology, delimitations and limitations, assumptions guiding the study, and definitions of terms.

The Problem

The problem addressed in this study exists in two domains, that of research and practice. First, many scholars have suggested the need for more research on the interrelational dynamics of leadership groups (Denis, Lamothe, & Langley, 2001; Edmondson, 2003; Hambrick, 1995; Kisfalvi & Pitcher, 2003; Pettigrew, 1992). In addition, recognizing that learning is a multilevel process (meaning that it occurs at the individual, group, and organizational levels), scholars have highlighted a critical gap in research on the interactive dynamics within the group that contribute to learning and knowledge creation. These interactive dynamics were examined using a multicase qualitative study that included semistructured interviews and observations of group interactions during formal leadership meetings.

Second, in the domain of hospital leadership practice, there is an inadequate understanding of the structures and practices that enact learning and the development of knowledge within the group. With the difficulties facing healthcare today, hospital leaders need to search for answers to problems that have not yet been clearly defined. At the organizational level, the current situation has produced a profound "leadership tension in American hospitals between chief executive officers' desire to do the right thing in terms of making their institutions more focused on the broader health of the community, on the one hand, and the need to ensure their institutions' survival on the other" (Morrison, 2000, pp. 23, 35). At the level of the leadership collective, in efforts to manage the equivocality facing them every day, hospital leaders have not yet searched for answers within the dynamic interactive processes being continuously enacted within their leadership groups.

Purpose of the Study

This study sought to enter these gaps in order to examine the dynamic interactive processes through which hospital leadership groups enact the learning and knowledge creation needed to meet the complexity they face. This required first an understanding of the leadership group as a construct and an explanation as to how the construct would be used in this study.

Leadership groups have been a point of interest in organizational and management literature for many years. Recognizing that leadership does not reside within any one individual, Hambrick and Mason (1984) introduced the management team as the unit of analysis, linking characteristics of leaders with strategic choice-making and organizational performance. Hambrick later defined a team as a "group that engages in mutual and collective interaction" (1995, p. 116) and acknowledged that many management groups do not function as teams.

Building on this notion, two levels of hospital leadership groups were studied. First, a top leadership group, defined as the group charged by the hospital board of directors to fulfill the mission of the hospital, was examined. This group was composed of a chief executive officer and seven direct reports, each responsible for overseeing distinct areas, such as finance, operations, and clinical services. The second group studied was a nursing leadership group, defined as the group charged by the hospital board of directors to oversee the delivery of nursing care throughout the hospital. This group was composed of a chief nursing officer and three direct reports, each responsible for directing operations in distinct areas of clinical and administrative functioning within the hospital. In this study, leadership groups were further conceptualized as ongoing

interactive processes taking place through formal and informal conversations in which strategy was developed, problems were addressed, and decisions were made, with the goal being the successful performance of the organizational mission.

Described in greater detail in chapter 2, research on leadership groups has tended to focus on leader characteristics, group composition, or process as they relate to strategic decision-making and performance (Ancona & Nadler, 1989; Church & Waclawski, 1998; Denis et al., 2001; Edmondson, 2003; Hambrick, 1995; Hambrick & Mason, 1984; Katzenbach, 1998a; Schein, 1992b). More recently, there has been an exploration of leadership as an emergent construct (Gardner & Cogliser, 2009; Lichtenstein & Plowman, 2009; Uhl-Bien, Marion, & McKelvey, 2007) and a call for a deeper examination of the dynamics reflected in the interactive processes among members of a leadership group (Denis et al., 2001; Edmondson, Roberto, & Watkins, 2003; Kisfalvi, 2000; Kisfalvi & Pitcher, 2003; Murrell, 1997).

Thus, there remains an inadequate understanding about how leadership group dynamics shape the emergence of the group itself. "The mutually influencing processes between actions and structures [has been] neglected in traditional structural-functionalist and hermeneutic research designs" (DeCock, 1995, pp. 701-702). Few studies have focused on the nature of the recursive interactive patterning between leadership group actions and structures, and thus there has been a gap and a need for further systematic and empirical exploration (Denis et al., 2001; Pettigrew, 1992). This study sought to narrow this gap by examining the recursive patterning processes in hospital leadership groups that enact learning and knowledge creation within the group. The study did not concern itself with outcomes relative to leadership group performance, but instead focused

specifically on the reciprocal patterning process that enacts learning and knowledge creation in the leadership group.

In summary, the problem addressed in this dissertation was the theoretical and empirical gap in leadership group research that limits understanding about how a leadership group enacts learning and knowledge creation within the group. This study aimed to fill this gap. More specifically, the purpose of this study was to (a) describe the dynamic interactive processes emerging within a hospital leadership group that enacted learning and knowledge creation; (b) extend theory about learning in leadership groups by contributing empirically based research that would enlarge understanding of the dynamics of the leadership group; and (c) extend the OLSM (Schwandt, 1997) by approaching it from a structuration perspective and applying it to the observation of the dynamics of a leadership group.

The Research Question

The overarching research question guiding this study was as follows: How does a hospital leadership group enact learning and knowledge creation? The research on the main question was supported by four subquestions:

1. What are the dynamic interactive processes generated within the group that enact learning and knowledge creation?
2. How do the patterns that are generated by these dynamic interactive processes enact the context for learning and knowledge creation within the group?
3. How does the structure of interrelating that emerges in the learning context shape the patterning of interactive dynamics within the leadership group?

4. How do members of the leadership group experience the learning and knowledge creation processes of their group?

Potential Significance

This study contributes to the development of theory and practice in five areas. First, it shows that structuration (Giddens, 1984) is a valid lens within which to view the mutual shaping of structure and action in a group. This study confirmed the use of the structurating modalities of signification, legitimation, and communication as a framework within which to recognize dynamic interactions that enact learning and knowledge creation in a group.

Second, the study illustrates that the combined use of the OLSM (Schwandt, 1997) and the tools of conversation analysis (Boden, 1994; Pomerantz & Fehr, 1997; Ten Have, 1999) provide a useful framework for the close examination of collective interaction that enacts learning and knowledge creation. At times, the study of organizational learning has appeared detached from the matter of human interaction. Placing the conversation analysis tools over the OLSM provided a vocabulary for describing the flow of knowledge in a leadership group.

Third, findings revealed that learning and knowledge creation are enacted in turns of talk between and among group members. Talk in groups matters. Turns of talk are shaped by and shape the communicative, normative, and power-relating patterns of behavior. Distinctions such as formality or informality in communication patterns, norms governing how turns of talk are acquired, and whether power is concentrated or distributed all shape learning interactions such as raising questions or queries, challenging group actions, experimenting with ideas, and so forth.

Fourth, in terms of practice, findings suggest that when members of a group engage in conscious interrelating, the group's ability to leverage its own process is enhanced. This study produced a compelling argument for leadership groups to participate in critical reflection on their interactive processes and the fundamental assumptions underlying them.

Finally, this study is deemed to have significance if it encourages curiosity in leadership groups about the ways in which they collectively create a context for learning among themselves. The results of this study may assist organizational leaders in pursuing efforts that "include not only learning how to make sense (Weick, 1995) but also learning how to learn (Bateson, 1972; Mezirow, 1990)" (Schwandt, 2005, p. 177).

Theoretical/Conceptual Frame

The fundamental premise of this study was that the actions and structures generated in a leadership group are continuously shaping and being shaped by each other (Giddens, 1984); that this process is generated in the patterning of interactions of group members with each other and with the internal and external organizational environment; and that this reciprocal process can enact learning and knowledge creation. Further, it was premised that this reciprocal process can be observed and that dynamic interactive processes that enact learning and knowledge creation can be identified and explained.

Giddens suggested that groups utilize the structures of the context in which they operate in three different ways: "as interpretive schemes in communication processes, as norms that guide behavior and undergird judgments about others, and as facilities in power and influence processes" (Poole, Seibold, & McPhee, 1996, p. 122). These modalities, which are grounded in the structuring properties of signification

(communication, use of language and symbols), legitimation (values, ethics, laws, and obligations), and domination (allocation of resources and positions of privilege and status), served to guide the approach used to consider leadership group interaction (Cassell, 1993). Figure 1-1 describes the relationship between structures and actions in the enactment of learning and knowledge creation.

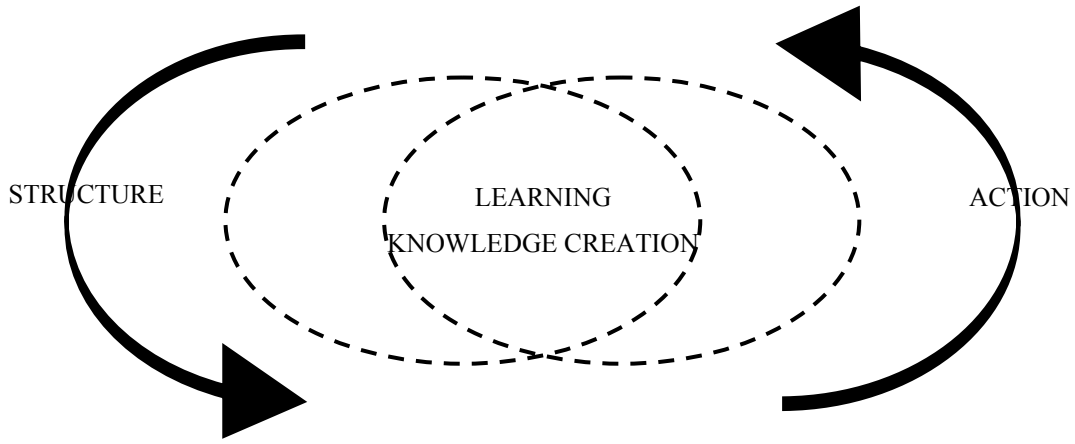

Figure 1-1. Conceptual framework.

Theoretical Foundation

This investigation originated from a worldview in which social reality is being constituted in time and space in the recursive patterned interactions that generate and are generated by social structuring properties (Berger & Luckmann, 1966; Giddens, 1984). Social structures are the medium and the means through which social interaction takes place (1984). Social interactions occur between unique individuals who are situated in time and space and shaped by the recursive patterns developing within those social interactions (Stacey, 2001). Schwandt's model of collective cognition, the OLSM (1997), and Habermas' theory of knowledge (1971) further informed this study.

Central Ideas of the Conceptual Framework

Three theoretical constructs framed this research study: (a) dynamic interactive processes, (b) collective cognition, and (c) knowledge. This section briefly elaborates on each of these constructs and then discusses learning and knowledge creation as a relational process.

Dynamic Interactive Processes

This research study defined dynamic interactive processes within the context of structuration theory (Giddens, 1979, 1984) as the patterning of social actions emerging over time and space, between and among group members, that generates change (Schwandt, 1997). The word *dynamic* is defined in the Oxford English Dictionary as "the forces which stimulate development or change within a system or process" (2004, p. 447). In this study, the concept of dynamics, forces generated in the interactive processing within and among members of a group, was applied to the communicative interaction occurring between people in a small bounded group. These forces are enacted in the language of social relating, or "talk-in-action" (Boden, 1994), which simultaneously shapes and is shaped by the structures generated in these dynamic interactions (Giddens, 1984).

Interaction is the process by which humans exist and construct their world (Berger & Luckmann, 1966; Mead, 1934). It is identified by "social acts" (Mead, 1934, p. 7), "language-in-use" between two or more individuals. That process begins with an initiating gesture by one person, followed by the response of the second person (Mead, 1934). In addition to face-to-face interaction, communicative actions can transcend local processes to include social relating that takes place over time through text (written

communication). In this way, language that is structured and reproduced creates history, a past that informs the present and extends beyond the here-and-now conversation to the here-and-there multiple conversations taking place at various times in various situations and contexts (J. R. Taylor & Van Every, 2000). Therefore, language is understood to produce, reproduce, and maintain ongoing processes of social relating (M. A. Glynn, personal communication, March 15, 2006).

Based on Giddens' structuration theory, it is in the recursive process that communicative actions between individuals and collectivities become organized as "regular social practices" (1979, p. 66). Referring to Parsons, in this context, "'action' should not be thought of as some process 'going on,' but as a relationship. It refers to a relationship between systems or structures of systems" (Bluth, 1982, p. 17). In other words, communicative action refers to the relationship between individuals and collectivities that is produced, reproduced, and maintained in language (Boden, 1994; Garfinkel, 1967; J. R. Taylor & Van Every, 2000).

Giddens' focus on social practices means that neither the individual nor the structuring properties within a social system are primary. Rather, primacy is delegated to the social interacting, "the primary generative phenomenon" (Lave & Wenger, 1991, p. 35) through which individuals construct the very social system that shapes their subsequent actions (Giddens, 1984). Understood as the recursive, reciprocal process of structuration, "social relating is the heart of dynamic interactive process, through which individuals, groups, and organizations remain stable or transform (Obstfeld, (unpublished)" (Pfeffer, 1981, p. 71).

Collective Cognition

This study adapted Schwandt's collective cognition model (Schwandt & Marquardt, 2000), which defines a learning system as "a system of actions, actors, symbols, and processes that enables an organization to transform information into valued knowledge which in turn increases its long run adaptive capacity" (p. 61). For the purpose of this study, the term *collective cognition* refers to the socially interactive process of learning that was enacted within the leadership group.

Schwandt (1997) defined collective cognition as the "system's ability to adapt to its environment not just through a performance orientation, but rather through the means of a creative cognitive capacity that influences the cultural assumptions of the collective (learning)" (p. 343). In other words, in examining interactive processes within leadership groups, this study focused on interactions that shaped and were shaped by beliefs, values, ideas, and meaning schemes of the collective. Schwandt's (1997) framework "is based on a functional sociological perspective, but recognizes emergence as a fundamental property of social learning that is dependent on both structure and human sensemaking" (D. Schwandt, personal communication, August 18, 2005).

Schwandt's model of collective cognition specified clearly that organizational learning takes place in social relating. "In the organization the location of the learning process is contained within the social dynamic actions and the complexity of the interacting components of the organization" (Schwandt & Marquardt, 2000, p. 23). Schwandt thus provided a way to integrate a conceptualization of learning as a process that takes place at different levels. In the organization, the location of the learning process is contained within the social dynamic and is reflected in the complexity of the

interacting components of the organization (p. 23). Adapting Schwandt's model to the group level of analysis, learning also refers to the process of interrelating through which "leaders develop deep understandings, foresight, and ethical judgments indicative of moral courage" (Schwandt, 2005, p. 177). Thus, learning becomes a medium for actions that produce change (Schwandt, 1997, 2005; Shaw, 2002; Stacey, 2001; Vygotsky, 1978; Weick, 1995).

Knowledge

In this study, knowledge was understood to be constituted in social relating through the medium of language (Berger & Luckmann, 1966; Blackler, 1995; Giddens, 1984; Habermas, 1971; Hargedon & Fanelli, 2002; Maturana & Varela, 1998; Mead, 1934; J. R. Taylor & Van Every, 2000) and transmitted through conversation, use of symbols and artifacts, structural routines, and norms (M. A. Glynn, personal communication, March 15, 2006). It is the process of understanding through experience as well as the medium through which new understanding can emerge.

Examinations of the complexity of knowledge have led to various attempts to differentiate dimensions of knowledge or ways of knowing. One way of approaching dimensions of knowledge is in their relation to "human interests" (Habermas, 1971). Human interest can be organized into three domains that compel a search for knowledge: the *technical*, the *practical*, and the *emancipatory* (Mezirow, 1991). Each of these domains is considered to be "knowledge constitutive" because each determines the approaches to the discovery of knowledge, the categories that govern the way experience is interpreted, and the processes through which knowledge can be validated (Mezirow, 1991).

Technical knowledge refers to the domain of instrumental action and is associated with work. A course of action is determined based on empirical investigation. From among alternatives, there is a best choice and it is based on "technical rules" (Mezirow, 1991, p. 73) that have been derived from cause-and-effect experimentation.

From the practical domain communicative knowledge is generated. It is constituted in social interaction through the medium of language and is validated "by the understanding of meaning, not observation" (Habermas, 1971, p. 310). The practical domain holds the reciprocal expectations of individuals about social behavior. Social norms derived through communicative interaction can be validated only in the intersubjectivity of consensual understanding.

The emancipatory domain represents interest in knowledge about the self. It includes interest in how one's history and biography have shaped the development of the self. It is "interest in the way we see ourselves, our assumptions about learning and the nature and use of knowledge, and our roles and social expectations and the repressed feelings that influence them" (Mezirow, 1991, p. 87). Self-knowledge is considered emancipatory because "it impels us through reflection to identify and challenge distorted meaning perspectives" (p. 87). Free of these distortions, we become increasingly autonomous and responsible social beings (Habermas, 1971).

In a view of knowledge extending from structuration theory, knowledge in an organization is understood to be both a practical phenomenon and an emergent phenomenon (Hargedon & Fanelli, 2002). Adapting this approach to the group level of analysis, practical knowledge exists in the physical, technical, and social processes and artifacts of the group. The focus here is on how the group "acquires, stores, retrieves,

processes, distributes, learns, unlearns, encodes and in other ways replicates existing knowledge" (p. 290). Emergent knowledge exists in the potential to generate novelty. The focus here is on how knowledge "represents the beliefs and values of [group members], and is context specific, dynamic, and continually subject to negotiation, transformation, redefinition, and recombination (Kogut and Zander, 1991, Weick, 1995, Leonard-Barton, 1995)" (Hargedon & Fanelli, 2002, pp. 290-291).

Traditionally, there has been a tendency to conceptualize knowledge as either practical or emergent (Hargedon & Fanelli, 2002). Structuration theory offers a perspective that can distill this dualistic tendency and instead see the reciprocal relationship between these dimensions of knowledge. Here knowledge is viewed as "a process of interaction between the two qualities of knowledge in which the knowledge of possibility (emergent knowledge) constitutes action (practical knowledge) and the knowledge of action constitutes possibility" (Hargedon & Fanelli, 2002, p. 291).

Learning and Knowledge Creation as a Relational Process

For the purpose of this study, learning and knowledge creation were approached as dynamic processes that occur in the interrelating between and among individuals and collectives. Knowledge creation is a relational process (Stacey, 2001) and, as such, knowledge and meaning are not stored in individual mental models and then transmitted out to others. Rather, knowledge and meaning are constructed and reconstructed in the patterning of the social interactions of separate biological beings that act in relation to others, to the social context, and to themselves (Shaw, 2002; Stacey, 2001). "Knowledge (or more appropriately, knowing) is an active process" (Blackler, 1995, p. 1021). It emerges in the interactive patterning of communicative action in which small differences

can be magnified and lead into new understandings. It has the potential to shape organizational culture in unpredictable and transformational ways (Stacey, 2001, 2003). This perspective suggested that "the focus [of study] should be on the systems through which people achieve their knowing, on the changes that are occurring within such systems, and on the dynamic processes through which new knowledge may be generated" (Blackler, 1995, p. 1021). Schwandt's (1997) conceptualization of collective cognition as a dynamic social interactive process provided a way to connect learning with the process of building knowledge.

This approach to knowledge creation highlights the potentiality that exists within collective processes. "When people put their ideas together summatively to produce a common pool of knowledge, also out of the interconnections, there emerges a representation of the world that none of those involved individually possessed or could possess" (J. R. Taylor & Van Every, 2000, p. 207). As that knowledge becomes part of the patterning process, it extends into the wider organizational process.

Summary

In summary, to understand the dynamic interactive processes generated in leadership group interaction, the collective learning and knowledge creating interactions of leadership groups were observed through the lens of structuration theory. The goal was to identify the recurrent patterning of interactions that shaped and was shaped by the structures enacted within the groups.

Overview of Research Methodology

To develop this inquiry, a multiple case study was designed. Two hospital leadership groups were identified to participate in the study: (a) the senior executive leadership group for Urban Hospital, and (b) the nursing leadership group for Community Hospital. Further details on the selection of cases are provided in chapter 3.

Data were collected through semistructured interviews, direct observation, and examination of documents and artifacts. Semistructured interviews were conducted with members of the leadership groups. Direct observation included access to formal and informal leadership meetings, including one-on-one meetings between the leader and group members, informal interactions with members of the leadership groups, and observation of other informal processes in the organization as they related to the study. The documents examined included organizational charts, meeting agendas, strategic plans, organizational newsletters, and other written data sources determined to be relevant to the study. The artifacts observed included the physical plant, objects, and other symbolic representations deemed to have meaning within the culture of the leadership group.

Both content and conversation analyses were used. Analysis of interviews and observation sessions followed the guidelines for qualitative data analysis from Miles and Huberman (1994) and Patton (2002). Tools adapted from the domain of conversation analysis (Boden, 1994; Pomerantz & Fehr, 1997; Ten Have, 1999) provided a close-up lens from which to study the interactions of group members during formal leadership meetings. The data were interpreted using the structuring modalities of signification, legitimation, and domination (Giddens, 1984) and the OLSM (Schwandt, 1997). Results

were compiled into a narrative of findings that is presented in chapter 4. Conclusions and implications are presented in chapter 5.

Delimitations and Limitations of the Study

This study was delimited to the senior leadership group of a large urban hospital and to the nursing leadership group of a mid-sized community hospital. Patient safety ratings, patient satisfaction scores, employee turnover, nurse vacancy rate, Joint Commission accreditation rating, and hospital profitability were not considered in the identification of the hospital leadership groups.

The focus of the study was further delimited to the interactive dynamics within the leadership group that enacted learning and knowledge creation within the group. It was not the intention of this study to focus on dynamic interactive processes that may shape other dimensions of the leadership group. Additionally, this study did not focus on group demographics, group process, communication skills, or levels of conflict or coherence in the leadership group, except as these dimensions were found to be relevant to the focus of this research. It was the intent of this study to look at two hospital leadership groups in order to identify specific dynamic interactive processes that enacted learning and knowledge creation within the group.

As with the outcomes derived from most qualitative research, the results of this study are not generalizable beyond the context of the two hospital leadership groups that participated in the study. Generalizability was not the goal of this research design; rather, the intent was that through detailed observation of a specific phenomenon (dynamic interactive processes), the findings may potentially "contribute to the social construction

of knowledge that, in a cumulative sense, builds general, if not necessarily generalizable knowledge" (Patton, 2002, p. 583).

It was also not the intent of this study to provide a template for training leadership groups to become more effective at the processes of learning and knowledge creation. The nature of qualitative research is such that it lends itself to the generation of a deeper understanding of the complexity of human process. The qualitative researcher, whose study is inherently bound by context, must find a way for findings to yield value beyond the single study. Extrapolation, according to Patton (2002), may be a way in which qualitative research findings can prove useful in similar situations. As distinct from generalization, extrapolation is defined as "modest speculations on the likely applicability of findings to other situations under similar, but not identical, conditions" (p. 584). The findings generated from this research study may be extrapolated to similarly situated contexts.

Assumptions

The following assumptions were fundamental to this study:

1. Reality is socially constructed (Berger & Luckmann, 1966; Mead, 1934).
2. Meaning is subjective and contextual (ideas of Heidegger and Kierkegaard) (Barrett, 1958).
3. The "seed of change" (Cassell, 1993, p. 101) is present in every social act.
4. Learning is a social process, generated in communicative interaction through the medium of language, that produces change (Bandura, 1977; Maturana & Varela, 1998; Schwandt, 2005).

5. Collective learning is a dynamic interactive process occurring between and among group members that transforms information into valued knowledge that generates change. It is fundamentally something other than the aggregate learning of individual members who comprise the collective (Argyris & Schon, 1978; Fiol & Lyles, 1985; Schwandt & Marquardt, 2000).
6. Knowledge is constructed in communicative interaction (Boden, 1994; J. R. Taylor & Van Every, 2000).
7. It is necessary to study the interactions occurring between and among group members in order to understand collective learning and knowledge creation (Giddens, 1984; Mead, 1934).
8. The structures of signification, legitimation, and domination mediate all interaction through interpretive schemes, norms, and the distribution of power (Giddens, 1979, 1984).
9. Leadership group interaction can be studied (Denis et al., 2001; Edmondson et al., 2003; Hambrick, 1995; Katzenbach, 1998a; Langley, 1999).
10. The effort to understand the enactment of learning and knowledge creation in hospital leadership groups is of value (Dovey & White, 2005; Edmondson, 2003; Edmondson et al., 2003; Morrison, 2000; Warden, 1999; Weick & Sutcliffe, 2003).

Definition of Terms

Action: An outlay of energy in a situation (means and conditions) that is enabled and constrained by norms and is oriented toward an end or goal (Giddens, 1984; Parsons & Shils, 1951).

Cognition: The process of acquiring knowledge through sensing, thinking, or experiencing.

Collective cognition: Social interactive processes through which knowledge is constructed.

Constraint: Action that serves to limit.

Conversation: The self-organizing interactive process of turn-taking between humans (Boden, 1994; J. R. Taylor & Van Every, 2000; Zimmerman & Boden, 1991).

Dynamic: Forces generated in communicative interaction.

Dynamic interactive processes: A continual flow of action (Giddens, 1984) occurring between biological human beings oriented toward individual and/or collective ends.

Enactment: Action that serves to make something possible.

Interaction: Continuous flow of social behavior between two or more individuals or between an individual and a group that occurs through the medium of language.

Knowledge: Constructed meanings that emerge in patterns of human relating.

Knowledge creation: The interactive process occurring through the medium of language, in which new understandings are constructed.

Knowledge structures: Meaning templates that have been constructed out of the interpretation of experiences and that guide interpretation and understanding of past, present, and future experience.

Knowledgeability: "Everything actors know about the circumstances of their action, and that of others, drawn upon in the production and reproduction of that action,

including tacit as well as discursively available knowledge" (Giddens, 1984, p. 375).

Leadership group: An identified collective, formed by semipermeable boundaries and instilled with accountability for the performance of an organization.

Learning: The socially interactive process of change that occurs as individuals acquire knowledge that can be transformed into action (Schwandt & Gorman, 2004; Shaw, 2002; Stacey, 2001; Vygotsky, 1978; Weick, 1995).

Meaning frames: Recursive patterns developed over time that function as a reference point for interpretation of experience. Also referred to as meaning structures.

Potentialize: Actualizing the capacity to make something happen; enacting possibility.

Power: "The capacity to achieve outcomes" (Giddens, 1984, p. 257).

Power relating: The way in which power influences interaction.

Resources: The means (abilities, materials, information, knowledge) that support the ongoingness of day-to-day life (Giddens, 1984).

Rules: Processes and procedures that become general and normative over time; properties of social systems (Giddens, 1984).

Sensemaking: Noticing cues based on previously constructed meaning frames and interpreting the cues so that a situation makes sense (Weick, 1995).

Social structure: The recursive patterns over time that inform the construction of a social organization. According to Giddens (1979), social structure is constituted in rules and resources. Also defined by Berger and Luckmann (1966) as "the sum total of the typifications and the recurrent patterns of interaction established by means of them" (1966, p. 33).

Structuration: A theoretical perspective suggesting that structural properties shape and are shaped by the processes that form a social system (Giddens, 1979, 1984).

Talk-in-action: The ongoing flow of conversational activities that form the fundamental framework of social interaction (Zimmerman & Boden, 1991).

CHAPTER 2:

LITERATURE REVIEW

Four domains of literature are relevant to this study, which has described the interactive dynamic processes in a hospital leadership group that enact learning and knowledge creation within the group. The four domains are (a) structuration theory as it relates to dynamic interactive processes, (b) collective cognition, (c) knowledge creation in groups, and (d) the leadership group. This chapter provides a review of the theoretical and empirical research informing each of these domains and discusses each of these streams of literature as they shaped the focus of this study.

Structuration Theory as Related to Dynamic Interactive Process

This section reviews the theoretical and empirical literature related to structuration theory as the lens through which to study dynamic interactive process. The underlying premise of this study is that dynamic interactive processes are generated in the recursive patterning of interactions of leadership group members and that the actions and structures generated in this process are continuously shaping and being shaped by each other (Giddens, 1979, 1984).

Dynamic interactive process is defined as the patterning of social actions emerging over time and space (Cassell, 1993; Giddens, 1984) between and among group members that generates change (Schwandt, 1997). For the purpose of clarification in this study, action is understood to be an outlay of energy in a situation (means and conditions) that is enabled and constrained by norms, and is oriented toward an end or goal (Giddens, 1984; Parsons & Shils, 1951).

Dynamic interactive process, then, is the means whereby social reality is constructed (Berger & Luckmann, 1966). Social reality occurs in the patterned interactions of individuals as they shape and are shaped by the context of their experience (Giddens, 1979, 1984). The critical dynamics generating this interactive process occur as individuals recursively respond to each other and to the experience they are creating. As members of a leadership group engage in interaction with each other, they are continuously shaping and being shaped by the structures they are creating. For example, when leadership group members openly voice disagreement, they are recursively shaping and being shaped by patterns related to the management of disagreement in the group. Each time they engage in that interactive behavior, they are shaping, reshaping, or maintaining the structures, including group norms and the distribution of power, about the management of disagreement.

Structuration and Dynamic Interactive Process

Structure and Agency

Giddens' introduction of structuration theory argued that social reality "is neither the experience of the individual actor, nor the existence of any form of societal totality, but social practices ordered across space and time" (Cassell, 1993, p. 89).

Agency, as it was defined by Giddens, refers to "a continuous flow of conduct" (1979, p. 55), ongoing actions that intervene in the flow of social process. Agency is distinct from other dimensions of human social action such as intention or purpose (Turner, 1991). It is "what an actor actually does in a situation that has visible consequences" (Turner, 1991, pp. 530-531).

The meaning of *structure* has been subject to various interpretations through the development of social theory. Most of them suggest that human actions are recursive and over time become patterned and stable (Turner, 1991). Structures have been defined as the distribution of resources among actors, the mental categories that guide actions, and the reproduction of actors' interpretive schemes (Turner, 1991). Berger and Luckmann (1966) described structure as the entirety of the "typifications and of the recurrent patterns of interaction established by means of them" (p. 33). Giddens' conceptualization of structure, while fundamentally altering the dualism of structure and agency, also extended the ideas of these theorists.

Giddens explained social structure as the "rules and resources recursively implicated in the reproduction of social systems" (1979, p. 64). He emphasized that structures cannot be separated from human action, and it is from this that the idea of the "duality of structure" was generated. Structuration theory provides a perspective that links structure and agency by arguing that "the structural properties of social systems are both the medium and the outcome of the practices that constitute the system" (p. 69). At the core of Giddens' theory is the fundamental argument that structure and agency are interdependent.

This concept has significant implications for the study of group interactive process. For example, in a leadership group, the idea that structure and agency are interdependent suggests that the interactions within the group are shaped by structures such as positions of power. The fundamental distinction of structuration theory is the idea that the interactions in the leadership group are simultaneously shaping the structuring of power positions while being shaped by them.

The challenge for this study theoretically was to find a way to think about interaction and structure in a leadership group without privileging either. Additionally, the methodological challenge was to find a way to study the recursive patterning described by Giddens. The quest was to find a comprehensive, in-depth process that emphasized dynamic interaction through the medium of language, recognizing the mutual shaping that occurs between action and structure.

The resolution of these challenges began with an elaboration of the basic idea of structure within structuration theory. The idea is that social structure is constituted in rules and resources. In the context of structuration theory, *rules* are processes and procedures that become general and normative over time. They are understood to be properties of social systems (Cassell, 1993). "Rules imply 'methodical procedures' of social interaction and typically intersect with practices in the contextuality of situated encounters" (Giddens, 1984, p. 18). They can be found in day-to-day routines and ordinary conversations. Because they are often tacit, they are usually informal and neither written down nor fully articulated (Giddens, 1984). They function as the norms by which social actors may interpret and evaluate their own behavior and the behavior of others. They provide the roadmap through which to translate social behavior and the guidelines that identify what is expected and acceptable in a social interaction. "Rules relate on the one hand to the constitution of *meaning*, and on the other to the *sanctioning* of modes of social conduct" (p. 18).

So, for example, the enactment of learning and knowledge creation in a leadership group is constituted in recurring interactive practices that generate patterns of learning and knowledge creation within the group. Here one could imagine rules that sanction the

asking of questions or the debating of ideas. At the same time, interactions that manifest these rules are simultaneously constituting the interpretation of these actions by the group. It is in this recursive process occurring over time that the patterns enacting learning and knowledge creation are emerging, and it is the dynamic interactions constituting this process that this study sought to understand.

Resources are the means by which people accomplish tasks in their day-to-day life. They can include abilities, materials, information, and knowledge that support the "ongoing-ness" in a social system (Turner, 1991). They are the property of social systems that mediate power, or the "transformative capacity" (Giddens, 1984) of social interaction (Cohen, 1989). "Resources refer to the facilities or bases of power to which the agent has access, and which she manipulates to influence the course of interactions with others" (1989, p. 28). Giddens distinguished between authoritative resources "that generate command over persons" (p. 28) and allocative resources "that generate command over material objects" (p. 28). The allocation of resources depends on the mediation of authoritative resources. In other words, those with the authority to move resources, to store, to retrieve, to access, will determine the allocation of resources within the organization. The relationship of these processes to power requires further elaboration. But first, because an understanding of rules and resources as constitutive of structure is important to this study, dimensions of these structuring properties are discussed.

Rules and resources constitute structure (Thompson, 1989). Giddens identified three "structural features of social systems, signification, legitimation, and domination" (1979, p. 97). These structures are "attached to interaction" (Turner, 1991, p. 479) via modalities within which (a) interpretive schemes are developed that enable

communication between actors, (b) norms are validated that guide social behavior, and (c) power distinctions are produced that govern the way in which actors relate to each other. While these three modalities of structure can be thought of distinctively, Giddens (1979) cautioned that they are features of social interacting and should be studied as distinct phenomena only for analytic purposes. Figure 2-1 describes the three "lines of mediation" (Thompson, 1989, p. 60) between interaction (agency) and structure.

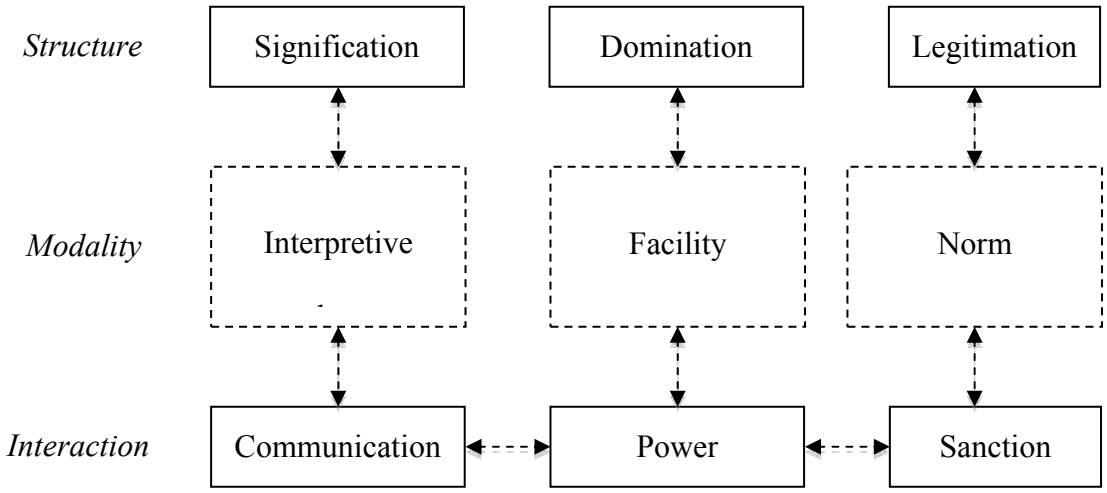

Figure 2-1. Mediation of interaction (agency) and structure. Adapted from Giddens, 1984, p. 29.

Figure 2-1 further illustrates that each modality transfers structure into action and action into structure. For example, signification shapes communication when actors draw on interpretive schemes in order to communicate meaning to each other. Likewise, communication between actors shapes and reshapes the associated structure. Structures of domination shape and are shaped by power relations between actors as they access resources within a system. Finally, structures of legitimation shape and are shaped by the ways in which actors apply norms derived from *codes of conduct* (Cassell, 1993;

Giddens, 1984) to the actions of others. Rules and resources can transform interactive patterns and can negotiate social interactions even as they are shaped by those patterns and interactions.

Knowledgeability

As social structure comprises the rules and resources enacted in a social system, Giddens was careful to point out that the members of that system act from within their specific *knowledgeability* of the system. Knowledgeability is "everything which actors know (believe) about the circumstances of their action and that of others, drawn upon in the production and reproduction of that action, including tacit as well as discursively available knowledge" (Giddens, 1984, p. 375). Giddens continually asserted that agents act from within a logic that is derived in part from their understanding of their social context and what is called for in the local interaction (Stones, 1991). This implies that members of a leadership group enact a narrative that they are continually constructing and reconstructing based on their own "strategic context analysis" (p. 676). In other words, members of the leadership group use their knowledge of the group structure and process in which they are participating to carry out meaningful interaction.

This process is ongoing. It is not as if a group defines a set of norms or structures about how it will relate. Rather, the group is constantly enacting itself by engaging in action and interaction that is generated in the ongoing knowledgeability of its members. Orlikowski further elaborated the idea of the continuity of knowledgeability by suggesting that "people's ongoing engagement in social practices and thus their reproduction of the knowing generated in those practices is how they reconstitute knowledgeability" (2002, p. 253).

Additionally, Giddens (1984) asserted that "it is a fundamental task of social science inquiry to pursue an understanding of the boundaries of agents' knowledgeability in the shifting contexts of time and space" (p. 328). This research provided an opportunity to explore the boundaries of members' knowledgeability as it shaped and was shaped by the interactive process.

Power as a Relational Process

In the context of structuration theory, "power is the capacity to achieve outcomes" (Giddens, 1984, p. 257) and is generated through structures of domination having to do with the application of rules and the management of resources (1984). For Giddens, power relations are never zero sum. Despite asymmetries in power relationships, actors with less power are still able to intervene and exert influence in a social system. "Actors in subordinate positions are never wholly dependent and are often very adept at converting whatever resources they possess into some degree of control" (p. 32). This is what Giddens meant by the "dialectic of control" that exists in all social systems "such that there are normally continually shifting balances of resources, altering the overall distribution of power" (p. 32). Thus, in a leadership group, we would not assume that power would always be established in the chief executive officer (CEO). Rather, power relations might shift within the group based on the distribution of resources (e.g., knowledge). Additionally, the analysis of power relations in a leadership group would require an examination of the "relations of autonomy and dependence between actors" (Giddens, 1984, p. 32) in the group, recognizing that the levels of autonomy and dependence are related to the distribution of resources.

The relational dimensions of power are well described in Giddens' theory (1979, 1984, 1993). In this study, it was important to develop a deeper understanding of the dynamics of power as they were expressed in the interactional dynamics of the hospital leadership groups in their enactment of learning and knowledge creation. From an empirical perspective, it is interesting to note that the relationship between power and organizational learning has been treated lightly in the literature (Fenwick, 2008). In a recent review of the literature on the relationship of individual-collective learning in work, Fenwick found that only 15% of articles reviewed between 1999 and 2004 addressed issues of power relations, and most of those articles were focused on theory. She highlighted a notable exception in a research study by Vince and Saleem (2004) that explored, at the organizational level, the emotional dynamics related to power and learning.

Additional results of empirical studies related to power and organizational learning have identified the influence of power relations as a critical dynamic in a learning environment. One study, focused on learning for innovation, found that the management of power relations, particularly relations involving the CEO, influenced social learning practice (Dovey & White, 2005). In a more recent study of nonprofit CEOs, the findings suggested that the power dynamics at the executive level constrained the executive's engagement in learning exchanges with staff (Sherlock & Nathan, 2008).

Another study focused on the effects of power relations on strategic discourse (Voronov & Yorks, 2005), suggesting that the lack of focus on the relationship between power relations and strategic change has overlooked the implications of this dynamic on strategic learning. Following the path of structuration, the present study has deliberately

focused on power relating as a dimension of the interactive process shaping the structures that enact learning within the leadership groups. In Ferdinand's (2004) study of the tension in power relations, results showed how power shapes the distribution of learning in an organization. Ferdinand suggested the need for further study, with the implication that increased understanding of the relationship between power dynamics and organizational learning might lead to "more empowering contexts in which to work and learn" (p. 449). Ferdinand's work opened a path for consideration of the ways in which power relations in the leadership group shaped the distribution of learning in the group. Finally, a recent study on the intentional distribution of power in a hospital found that a distribution of decision-making power enhanced the learning environment (Ford, 2006). Each of these examples of empirical work on the role of power relations in the group and organizational learning process offered a perspective on various dimensions of power relating and its implications for learning in the group.

Critique of Structuration Theory

In arguing his concept of the duality of structure, Giddens (1979) asserted that "structure enters simultaneously into the constitution of the agent and social practices, and 'exists' in the generating moments of this constitution" (p. 5). Structure is understood to be both the medium and outcome of social interaction. Giddens' work (1979) has been criticized in particular for eliding the tension between various dualisms inherent in social systems (Archer, 1982, 1988; Layder, 1997; Ranson, Hinings, & Greenwood, 1980; Thompson, 1989). Giddens focused on processes and argued that social structures exist only as they are "instantiated" by people, thereby suggesting that "the individual and social cannot be methodologically or ontologically distinguished" (Sawyer, 2002, p. 283).

Further, Giddens asserted that neither structure nor agency is privileged over the other, but rather they are "held to be mutually constitutive" (Carter & New, 2004, p. 7).

In her challenge to Giddens, Archer (1988) argued from the perspective of analytic dualism that the properties of agency and structure are distinct and that by collapsing the distinctions between them, Giddens' theory weakens the potential for a deeper analysis of social systems (Sawyer, 2002). Layder (1997) supported that argument with his criticism of Giddens' conceptualization of power. He objected to Giddens' emphasis on agency and argued for an examination of the structures of power that exist within the social system, especially the role of constraints (Layder, 1997). He agreed with Archer's (1988) claims that by maintaining an understanding of agency and structure as a dualism and examining each as separate entities with properties of their own, analysis will achieve more comprehensiveness, specificity, and complexity. Giddens retorted that the fragmentation that occurs when looking at agent and structure as separate entities rather than as processes that recursively interact traps the researcher in a limited perspective that neglects the complexity of the whole.

In another critique of structuration theory, Archer (1988) charged that Giddens was inconsistent in his own argument because even though he claimed person and process could not be separated, methodologically he employed the strategy of bracketing in order to analyze dimensions of each. Giddens (1984) defended his practice, cautioning that these structures were viewed distinctly only for purposes of analysis. He asserted that in the day-to-day social interaction of humans, the three structures are entwined and together generate ongoing interaction. Weick's (1995) explanation of bracketing is helpful here. Weick suggested that bracketing is a dimension of enactment. Here, for

example, Giddens is breaking out categories of structural process and by so doing enacts those categories. Put another way, it is through the process of bracketing that Giddens enables the social construction of signification, legitimation, and domination. Archer (1982), however, pointed out that a theory is incomplete and flawed if it cannot lead to an aligned methodology. Here, Archer pinpointed one of the major issues that constrains the study of dynamic interactive processes. How does one observe a dynamic process?

Structuration Theory and Empirical Research

Adapting structuration theory (Giddens, 1984) to empirical research holds a number of challenges (Barley & Tolbert, 1997; Jack & Kholeif, 2007; Orlikowski, 2002; Pozzebon & Pinsonneault, 2005; Stones, 1991). While Giddens (1984) deliberately refrained from commenting on the application of his theory to specific forms of social research, he did, however, suggest fundamental constructs of his theory that should be considered when doing empirical study. In particular, he emphasized that "no study of the structural properties of social systems can be successfully carried on, or its results interpreted, without reference to the knowledgeability of the relevant agents" (p. 329). Additionally, it is telling that in a discussion about the dualism of quantitative research (focused on macro issues) and qualitative research (focused on micro issues), Giddens analyzed a strip of conversation to demonstrate the fundamentals of structuration (1984, p. 330). Here he pointed out that dualism, similarly to the historical dualism of structure and action, misses the understanding that contained within the turns of talk is the enactment of social structure (Boden, 1994).

In the intervening years, numerous empirical studies in fields such as technology, sociology, and organizational studies have used structuration theory as their framework

(Barley & Tolbert, 1997; Denis et al., 2001; Heracleous & Barrett, 2001; Heracleous & Hendry, 2000; Jack & Kholeif, 2007; Orlikowski, 2002; Poole, Seibold, & McPhee, 1985, 1996; Pozzebon & Pinsonneault, 2005). Recent work linking structuration with institutionalization theory (Barley & Tolbert, 1997)—an approach to the empirical study of how day-to-day interaction enacts institutions—began to address the challenge of developing a methodology compatible with structuration theory. The focus of the methodology is in identifying organizational changes that reshape interactional scripts by charting the flow of action between and among actors. Even so, Barley and Tolbert pointed out the issues (i.e., how to follow the actions of multiple actors in multiple collectives, how to chart the actions of collectives, and so forth) that appear to constrain the actual practice of such empirical investigation (1997, p. 105). Moreover, they acknowledged that their methodology left out altogether the interpretive frames that inform the actions of individuals and collectives. This is problematic, as Giddens (1984) has emphasized that the knowledgeability of actors is an essential aspect of any empirical investigation emerging from a structuration framework.

Stones (2005) responded to Archer's criticism by proposing an analytic framework within which to conduct empirical research. His framework enlarged Giddens' three-part orientation to the structure-action relationship into a four-part scheme that includes a focus on external structures, internal structures, action, and outcome (Stones, 2005, pp. 84-85). The methodology consists of an analysis of the meaning schemes of the actors, an examination of actions (practices) carried out by the actors, an identification of the external structures as they shape practices and internal structures, and finally an examination of the outcomes of the activity. Stones and others recognized that

adapting a complex and abstract theory to empirical research requires a disciplined delimiting of the focus to specific elements of the context being explored (Jack & Kholeif, 2007).

One longitudinal research effort in particular has attempted to address methodological issues. In a multicase study on the dynamics of collective leadership and strategic change, Denis et al. (2001) began to develop a "process theory of strategic change" (p. 809). Their work, grounded in structuration theory, developed an approach to the interactive dynamics of hospital leadership "constellations . . . inspired by views of structure and action as mutually influencing one another over time, with individual action being constrained by structure and yet simultaneously modifying that structure" (p. 811). They also suggested that the study of dynamic process needs to include an appreciation of the duality of structure and process.

Orlikowski's work to understand the central role of practices and knowledgeability in the product development work of a multinational organization (2002) was also informed by a framework based on structuration theory. Methodologically, she relied to a great extent on interviews, but she also observed and recorded interactive conversations among members of the study groups. Her work was cited numerous times for being exemplary in the methodological application of structuration theory (Pozzebon & Pinsonneault, 2005).

A review of empirical research based on structuration theory resulted in the identification of three organizing elements (duality of structure, context, and knowledgeability of actors) and four methodological strategies (grounded strategy, narrative strategy, visual mapping, and temporal bracketing strategy), culled from a

review of 20 studies within the field of information technology (Pozzebon & Pinsonneault, 2005). Even so, Pozzebon and Pinsonneault (2005) suggested that structuration offers rich opportunity for deeper investigation into the duality of process and structure and thus will require continued development of methodologies for its application.

A more recent discussion of two case studies (Jack & Kholeif, 2007) suggested that structuration is a framework for conducting empirical study that challenges researchers to "ask more penetrating questions of their sources and themselves" (p. 222) and thereby generate analysis that takes into account both the interpretive and structural elements of the phenomenon under study.

Summary of Structuration Theory

At its core, structuration theory presents a perspective from which to understand how organizations, collectives, groups, or people generate and sustain themselves over time and space through interaction (Witmer, 1997). Structuration theory is a particularly appropriate foundation for this study because it is specifically focused on understanding dynamic social processes (Banks & Riley, 1993; Cassell, 1993; Giddens, 1979, 1984; Witmer, 1997). Giddens (1991) contended that "structuration theory should be viewed as an ontology of social life" (p. 201), ontology here referring to the study of *what is*, of what exists (Cohen, 1989, p. 29). In addition, "structuration theory itself provides an ontology of potentials" (Cohen, 1989, p. 29). This study sought to understand the *what is* of dynamic interactive processes in hospital leadership groups that enable the potential for learning and knowledge creation.

Collective Cognition

Learning has been accepted as a social process (Bandura, 1977) that emerges through the medium of language (Maturana & Varela, 1998). In the recent past, the construct has been delineated at multiple levels: individual, collective, organizational, and institutional. This literature review provides a brief examination of some of the major theoretical and empirical developments in learning at the individual and collective levels over the past 50 years as they relate to the collective learning processes of leadership groups.

While this study was conducted primarily at the group level of analysis, it is recognized that learning is a social process and is therefore constructed in communicative interaction occurring among individuals and shaped by the external structures of the organizational environment as well as the meaning frames of the individuals and the collective. As such, related adult learning, team learning, and organizational learning literature is examined.

Adult Learning

Definitions of learning arising from the field of adult development focus on the relationship between learning and change, specifically change in behavior (Merriam & Caffarella, 1999). While there are many orientations to adult learning, this review focuses on an orientation to adult learning as a human process of change. Transformational learning theory (Mezirow, 1978, 1990, 1991, 1994) provides this focus because of its critical examination of fundamental premises of meaning and change.

As discussed above, this study has emerged from the theoretical foundations of structuration theory (Giddens, 1979, 1984). In structuration theory, meaning frames are

understood to be socially constructed through the recursive patterning of social interrelating. At the collective level, these are defined as structures or, more accurately, structuring properties constituted in rules and resources.

While this theoretical orientation emphasizes process at the collective level, the individual role in social process is acknowledged. Meaning frames inform social acts and the interpretation of experience as well as being informed by these processes. Slight adjustments to one's perceptions in the face of surprise or ambiguous experience can lead to changes in individual meaning frames, which in turn can precipitate alterations in social relating and sensemaking (Stacey, 2001; Weick, 1993, 1995, 2002; Weick & Sutcliffe, 2003; Weick, Sutcliffe, & Obstfeld, 2005).

The two elements of Mezirow's theory that have relevance to this study are critical reflection and perspective transformation (1990, 1991, 1994, 2000). Critical reflection is an interactive process through which one engages in a reappraisal of assumptions (Mezirow, 1994). Perspective transformation is

> the process of becoming critically aware of how and why our presuppositions have come to constrain the way we perceive, understand, and feel about our world; of reformulating these assumptions to permit a more inclusive, discriminating, permeable, and integrative perspective; and of making decisions or otherwise acting on these new understandings. (Mezirow, 1994, p. 320)

In Mezirow's conceptualization, this reflective process begins with a "disorienting dilemma" (1994). However, critics of Mezirow have suggested that the disorienting dilemma is not essential to critical reflection (Cranton, 1994; E. W. Taylor, 1997).

Transformational learning is rooted in social constructivism and understands learning to be a process that is shaped by meaning structures, basic assumptions that direct perception, understanding, and judgment (Mezirow, 1994). At this deeper level of

meaning-making, the learner engages in a purposeful reflective process, questioning the beliefs and assumptions that guide action (1994).

As Schwandt (2005) pointed out, learning in the context of Mezirow's theory is rooted in "self-knowledge and critical inquiry" (p. 185). The structuring of leadership groups has traditionally led to an emphasis on action and has presented constraints to reflection and critical inquiry. Without appraising their meaning frames by critically reflecting on them in the light of present reality, leadership groups are prone to acting out of frameworks that fit the challenges of the past but are no longer meaningful when applied to the challenges of the present (Schwandt, 2005). "Meanings affect frameworks which affect meaning" (Weick & Roberts, 1993).

Group Learning

The continued burgeoning of teams in organizations points to an assumption that knowledge is generated in groups. The field of organizational learning has recently adjusted its focus in order to explore collective learning in groups (Brooks, 1994; Edmondson, 2002; Kasl, Marsick, & Dechant, 1997; London & Sessa, 2007; Lucas & Kline, 2008; Sessa, 2008). The growing body of work in this field is responding to two fundamental questions: How does learning happen in a group? What is the relationship between group learning and organizational structure?

Group learning appears to be conceptualized on a continuum from a framework that establishes a clear boundary between the individual and the group (Ellis et al., 2003) to a framework that views group learning as the dynamic interactions in which knowledge is created (Kasl et al., 1997; Stacey, 2003; J. R. Taylor & Van Every, 2000). As indicated above, this study is firmly grounded in the notion that knowledge is socially

constructed (Berger & Luckmann, 1966; Schutz, 1967). Recent research on group learning that reflects this conceptual orientation has made contributions in both the theoretical and empirical domains.

London and Sessa (2007) have approached the structuration perspective by defining group interaction as "identifiable patterns that are learned by the group, fine-tuned through feedback, reinforced by external parties and/or the group leader and members and repeated over time" (p. 354). Kasl et al.'s work (1997) also supported the structuration orientation to interactive process. She and her colleagues found learning in groups to be a dynamic process in which the interactions of the group and the structures that supported the group influenced each other.

This line of exploration has filled a gap in organizational learning research by addressing what happens at the point where the group and the organization intersect. Organizational structures have been found to shape group interactive practice (Brooks, 1994; Edmondson, 2002; Kasl et al., 1997) with respect to the distribution of power. Brooks (1994) proposed a link between the distribution of power among individual team members and the collective development of knowledge within the team. She found that when power within the group and between the group and the organization were managed, the group was able to produce technical knowledge. Her findings further suggested that when power was evenly distributed among members of the group, the group was able to reflect on itself and develop social knowledge (Brooks, 1994). Edmondson (2002) suggested that it was not just the distribution of power, but also team members' perceptions of power relations that influenced their ability to reflect as a group.

Several researchers have taken a developmental view of group learning, identifying characteristics of interaction that define a specific stage or mode in the evolution of group learning process (Kasl et al., 1997; London & Sessa, 2007; Sessa, 2008). Kasl et al.'s work (1997) reflected the learning process of the researchers, as they recognized that group learning was not linear and did not progress through stages, but rather was complex and moved stepwise across modes, which they defined as "Fragmented, Pooled, Synergistic, and Continuous" (p. 229). Recent findings suggested that a group may alter its interactive process when offered the opportunity to collectively reflect on its actions and the meaning of those actions (Kasl et al., 2007).

Of particular note was Brooks' work (1994) on the relationship between the challenges groups continue to face as they interact together and the fundamental cultural assumptions within the United States about collectivity and independence. She wondered if the structures shaping the competitive individualism that Americans pride themselves on also presented unseen challenges to the very notion of engaging in collaborative group learning processes in the workplace. Perhaps the very act of collectively creating knowledge is shaping and reshaping these basic structures and reflects a collective engagement in exploration (March, 1991). "Although collective team learning is problematic to implement in current organizations it stands as an important example of our ability to imagine and enact alternative ways of relating and knowing" (Brooks, 1994, p. 233).

Organizational Learning

The concept of organizational learning has been theoretically developed and empirically studied since it was introduced in the work of March and Simon (1958) and

Cyert and March (1963). The great contribution of organizational learning research has been the building of a relationship between the construct of learning and the construct of the organization as a system. The research has generated a variety of lenses through which to view the ways in which organizations take in information, interpret it, and then use it to adapt to changing environments, compete for market share, or contribute to the development of new knowledge in the larger global system.

It remains challenging to present one concise definition of organizational learning. Glynn, Lant, and Milliken (1994) presented an approach that integrates ideas about organizational learning and organizing processes. They defined organizational learning as an integrated process "by which organizations understand and manage their experience" (p. 45) and approached organizational learning from a multilevel perspective. Crossan, Lane, and White (1999) pointed out that investigations into the ways organizations learn have originated in distinct domains. They pointed to Huber's work (1991) based on an information processing framework, Nonaka's (1994) orientation to innovation, and March and Olsen's (1988) work emerging from a bounded rationality perspective.

The breadth and depth of study of organizational learning over the past 25 years has confirmed that "learning is an integral part of generative social practice in the lived-in-world" (Lave & Wenger, 1991, p. 35) and, further, that the research and practice communities recognize its elusiveness as much as its centrality to organizational performance. Despite the plea for consistency in the development of organizational learning theory (Huber, 1991), the variant perspectives and the knowledge accumulation

within each have richly enhanced our ability to perceive the shaping of learning patterns within organizations.

The literature on organizational learning is vast. A number of typologies have been constructed to provide a way to look at the breadth of approaches to organizational learning (Easterby-Smith, 1997; Easterby-Smith & Snell, 1998; Walsh, 1995). Table 2-1 provides a sampling of theoretical perspectives that have contributed to this study. The list is not intended to be an exhaustive summary of the organizational learning literature, but instead is a list of key works that have informed the investigation of dynamic interactive processes in hospital leadership groups that enact learning and knowledge creation.

The interest in organizational learning continues to grow. In the last 5 years, the ABI/Inform Complete Plus database alone listed over 2,000 scholarly articles either reporting on empirical research or exploring theoretical constructs related to organizational learning.

A major theoretical issue giving rise to substantial debate in the organizational literature is the role of the individual in organizational learning (Crossan & Guatto, 1996; Easterby-Smith & Snell, 1998; Fenwick, 2008; Hedberg, 1981; Lehesvirta, 2004; Schwandt & Marquardt, 2000). In a recent review of the research focused on the relationship between the individual and the collective with respect to learning, Fenwick (2008) reported that there continues to be a lack of a cohesive theoretical approach to this critical intersection. Researchers focused at the individual level tend to conceptualize the individual as a repository for knowledge that can be translated into capabilities for the organization. Research at the collective level, while still lacking consistency in

Table 2-1
Theoretical Approaches to Organizational Learning

Theorist	Summary of theoretical orientation
March & Olsen (1975)	Examined boundaries of organizational learning related to ways in which individuals adapt their understandings in the face of ambiguity. Laid out components for a theory of learning including information exposure, memory, and retrieval; learning incentives; belief structures; and so forth.
Hedberg (1981)	Acknowledged the relationship between the individual learner and the organization as learner. Distinguished between learning and adaptation. Indicated that organizational learning includes processes of selection, interpretation, storage, and response. Described learning triggers: problems, opportunities, and people. Well known for work on unlearning, or discarding knowledge; unlearning requires changing frameworks, discarding frameworks that are no longer useful in building new ones.
Daft & Weick (1984)	Viewed the organization as an interpretation system characterized by sharing of information among managers; top managers set the interpretative focus. Defined interpretation as a "process of translating events and developing shared understanding and conceptual schemes among members of upper management" (p. 286).
Fiol & Lyles (1985)	Identified two levels of learning within the organization: lower-level learning, focused on routines that lead to expectations about outcomes and occurring in well-defined situations with minimal levels of ambiguity; and higher-level learning, which occurs in situations that are not well defined and that require deeper levels of critical reflection. Pointed out consistencies in organizational learning theory: (1) recognition that organizations need to align with environments to stay competitive; (2) the need for distinctions between individual and organizational learning (agreed with Hedberg that although organizational learning occurs through individuals, it is not simply the aggregate of individuals' knowledge); (3) contextual factors that influence the probability that learning will occur, including culture, approach to and implementation of strategy, structure, and level of complexity in environments.
Huber (1991)	Adopted an information-processing perspective, arguing that "an entity learns, if, through its processing of information, the range of its potential behaviors change" (1991, p. 89). Listed four dimensions of organizational learning: (1) acquisition—by inheriting it, developing it through experimentation and experience, importing it from outside, or replicating what other organizations have learned; (2) distribution of information, which widens the base of knowledge in the organization; (3) interpretation of information by relating it to frameworks and schemas and developing shared understanding throughout the system; and (4) organizational memory, which provides for storage and retrieval of organizational knowledge. Was criticized for lack of cohesion in theory-building.
March (1991); Levinthal & March (1993)	Considered organizational learning to be about managing the tension between exploitation (making use of what has already been learned) and exploration (searching for new solutions, developing new knowledge). Developed specialization and simplification as organizational processes for managing potential problems. Emphasized foresight as a significant function of learning and pointed to organizational tendencies to privilege the short run over the long run and to accentuate successes and ignore failures. Pointed out liabilities in learning from experience: "Many of the cognitive limits that constrain rationality also constrain learning" (1993, p. 96).
Argyris (1993)	Developed a multilevel organizational learning theory that emphasized double-loop learning: challenging organizational defensive routines so as to change "theories of action" or underlying assumptions and values; results in change in action strategies.
Crossan, Lane, & White (1999)	Viewed organizational learning as a dynamic means of achieving strategic renewal. Highlighted the need for organizations to manage tension between exploitation and exploration (extension of Levinthal & March, 1993); presented 4I framework, suggesting that organizational learning takes place on multiple levels with levels that are linked by processes of intuiting, interpreting, integrating, and institutionalizing. Drew the link between cognition and action in suggesting that cognition shapes action.

orientation, does reflect commonalities related to "an emphasis on emergence, co-participation, and mutual constitution" (p. 235). Other tendencies include efforts to adapt elements of learning theory at the individual level to the collective or to treat the collective as a learning entity, ignoring the role of the individual (Berends, Boersma, & Weggeman, 2003).

A current approach suggests that structuration theory emerging from a social theory orientation offers a way to manage both the individual and the collective in developing organizational learning theory (Berends et al., 2003; Hargedon & Fanelli, 2002). Structuration theory recognizes that theorizing originating with the role of the individual or the role of the collective misses dimensions of the whole that need to include both individual actor and collective system (Giddens, 1979, 1984).

The organizational learning systems model (OLSM) developed by Schwandt (1997) is based in the general theory of action (Parsons & Shils, 1951) and adapts a relational orientation to collective learning (Schwandt, Ayvaz, & Gorman, 2006). Schwandt's (1997) approach to the complexity of organizational process theoretically integrates cognition and action, or learning and performance. Schwandt's conceptualization goes beyond simply acknowledging the role of individual actors. He suggested that the effectiveness of the relationship between the individual and the collective calls for the individual to "understand the values of the collective and how one is influential both in achieving the collective's goals and in directing one's own choice" (Schwandt et al., 2006, p. 65).

This study provided an opportunity to utilize Schwandt's model (1997) within the theoretical framework of structuration (Giddens, 1984). An overlay of Schwandt's model

onto structuration theory provided a useful methodological framework within which to explore dynamic interactive processes.

Structuration theory (Giddens, 1984) extends the concept of adaptation as it is presented in the general theory of action (Parsons & Shils, 1951). Rather than one system adapting to another, Giddens argued that through the process of structuration, systems are forming and being formed by each other through the dynamic interactive processes of their members (1984). Schwandt's model (Schwandt, 1997; Schwandt & Marquardt, 2000), composed of four action subsystems, provided a conceptualization for the use of structuration theory as an orientation to collective learning.

The OLSM has two fundamental components: (a) four subsystems of collective action and (b) four sets of interchange media (Schwandt, 1997). The four action subsystems and the associated output for each are as follows: (1) environmental interface and new information; (2) action/reflection and goal reference knowledge; (3) dissemination and diffusion and structuring; and (4) meaning and memory and sensemaking. Recursive interactive patterns are generated within each of these subsystems. The media of interchange generated in each of the subsystems "symbolically represent its functional product" (Schwandt & Marquardt, 2000, p. 68). The relationship of subsystem outputs is reciprocal. Each is produced within a subsystem, and each is a required part of the interaction within every subsystem. Figure 2-2 displays Schwandt's model of collective cognition.

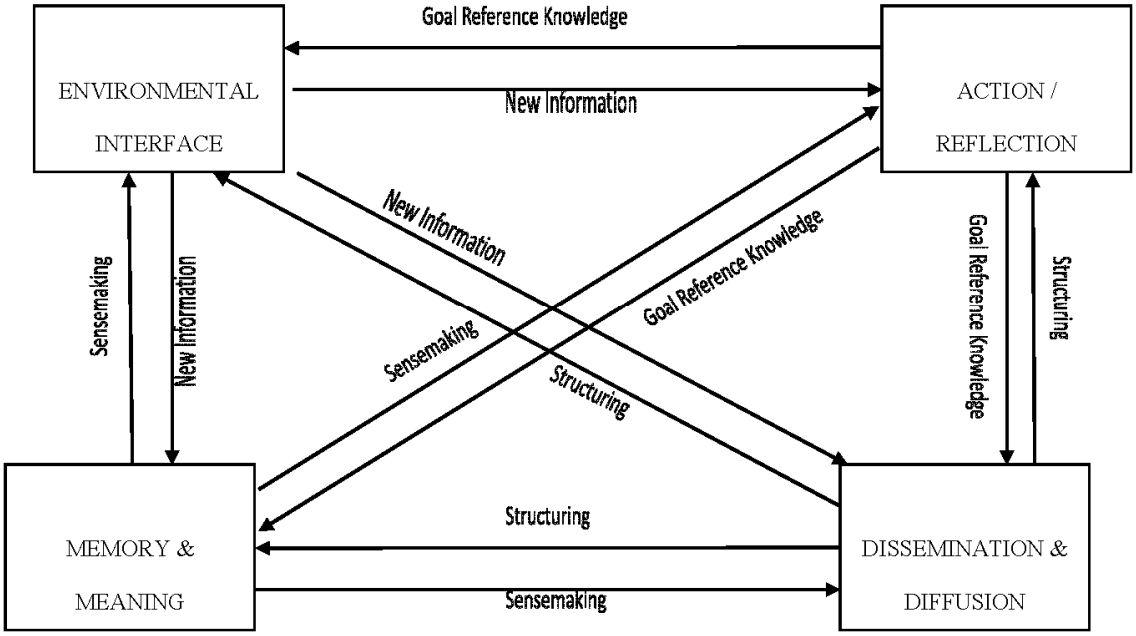

Figure 2-2. Collective cognition framework. Adapted from Schwandt & Gorman (2004).

While Schwandt's model was developed at the organizational level, this study extended its conceptualization to the group level, emphasizing that social action (Parsons & Shils, 1951), which is a foundational base for this model, happens in the patterned interactions of individuals, groups, collectives, and organizations. A view of learning as a socially constructed process further suggests that "learning may involve . . . the creation of newly emergent knowledge from organizing processes that encompass both micro and macro level interactions" (Glynn et al., 1994, p. 57). This study, focused on the enactment of learning and knowledge creation, has suggested that the nature of the connections between individuals, the group, and the organization is to be found in dynamic interactive processes and that it is these processes that need further explanation.

The environmental interface subsystem represents the dynamic interactive processes that scan the environment, acquire and interpret information for the

organization, and release information from the organization into the environment (Schwandt & Marquardt, 2000). These processes are reflected in actions that are shaping and being shaped by manager frames related to the potential for analysis of the environment and the level of passivity or activity with which the organization penetrates the environment (Daft & Weick, 1984; Schwandt & Marquardt, 2000). The output of this subsystem, new information, is continually sent into the learning system (Schwandt & Marquardt, 2000).

The collective cognition model (Schwandt, 1997) emphasizes the relationship between learning and action and distinguishes between learning and knowledge creation. In much of the organizational learning literature, the boundary between these constructs is blurred. The current study assumed the perspective that learning and knowledge creation are distinct but interdependent constructs. An examination of the dynamic interactive processes that occur in the action/reflection subsystem of Schwandt's model provides a way to explore this distinction.

In the action/reflection subsystem, valued information is transformed into knowledge by interactive reflection and action processes shaped by the learning needs and goals of the organization. These interactions may appear as experimentation, research, evaluations, critical thinking, decision-making, problem-solving processes, critical reflection (Schwandt, 2005), and so forth. The structuring properties within this system and within the organization shape the reflective interactions of this subsystem (Giddens, 1984; Schwandt & Marquardt, 2000). Likewise, the reflective interactions of the subsystem shape the action/reflection structures (Giddens, 1984).

The capacity for reflection can shift between lower-level and higher-level thinking (Fiol & Lyles, 1985), moving from consideration of "how" something is done to thinking about the results of an action and reflecting on the underlying assumptions guiding action (Schwandt & Marquardt, 2000). This ongoing interactive process generates the transformation of information into valued knowledge, meaning knowledge that can be referenced to the organization's goals, and mediates the transmission of goal reference knowledge throughout the learning system.

The dissemination and diffusion subsystem reflects interactive processes that coordinate various components of the learning system (Schwandt & Marquardt, 2000). Interactions within this subsystem are deliberately geared toward developing structures that can support the formulation and distribution of information and knowledge throughout the organization, coordinate roles and responsibilities, structure leadership roles, and manage communication processes (Schwandt & Marquardt, 2000). Interactions within this subsystem generate integrative processes that can coordinate and facilitate the ongoing development of the learning system.

Dynamic interactions within the meaning and memory subsystem act to maintain the fundamental patterning processes of the organization (Schwandt & Marquardt, 2000), including "the criteria for the judgment, selection, focus, and control of the organizational learning system" (p. 196). The culture of the organization, including its own unique language, symbols, values, beliefs, artifacts, and actions, is manifested within this subsystem. The recursive process of patterning within this subsystem shapes the structures that provide for the storage and retrieval of organizational knowledge. These memory processes are generated in collective action and represent the collective history

of the organization. Sensemaking is generated in the dynamic interactions within this subsystem and then mediates the maintenance of meaning and memory throughout the learning system.

The dynamic patterns of interchange reflect the interdependence between the learning subsystems. Table 2-2 provides examples of actions or objects associated with each medium of interchange.

Table 2-2
Variables Associated with the Interchange Media in the Learning Subsystems

Interchange medium	Variables	
New information	• Internal and external data • Customer feedback • Employee survey • Trend and scanning data	• Competition data • Intuitive information • Results of an experiment • Program evaluation results
Goal reference knowledge	• Decision-making procedures • Knowledge structures/maps • Technical knowledge	• Policies • Documentation • Routines
Structuring	• Organizational roles • Leadership	• Norms • Communication structure
Sensemaking	• Stories and memories • Meaning schemata	• Language and symbols • Values and assumptions

Note. Adapted from Schwandt & Gorman (2004).

Knowledge Creation

In a brief review of orientations to knowledge, Blackler (1995) identified several approaches to knowledge that have been developed over the last 40 years. In his brief typology, knowledge was defined as

> socially constructed (Berger and Luckmann, 1966), often tacit (Polanyi, 1967), enacted (Weick, 1979), socially distributed (Hutchins, 1983), situated (Suchman, 1987), material, as well as mental and social (Latour, 1987), resilient, but provisional and developing (Unger, 1987), public and rhetorical (Vattimo, 1988), and acquired through participation within communities of practice (Lave and Wenger, 1991). (p. 864)

Additionally, in theoretical and philosophical perspectives from philosophy, social theory, and organizational learning theory, there are many approaches to the construct of knowledge, often distinguishing categories or properties of knowledge. The varied perspectives and typologies, drawn from theoretical perspectives from philosophy, social theory, and organizational learning theory, shape various interpretations of what knowledge creation is in the context of an organization, or in this case, in the context of a leadership group. Table 2-3 summarizes a sampling of these categorizations.

Table 2-3
Theorists and Knowledge Categories

Theorist	**Categories of knowledge**
Ryle (1949)	"Know how" versus "know that"
Polanyi (1966)	Tacit knowledge
Habermas (1971)	Technical, communicative, transformative
Blackler (1995)	Embrained: Knowledge that or knowledge about Embodied: Knowledge how from Ryle Encultured: Shared understandings Embedded: Knowledge residing in systemic routines Encoded: Information conveyed by signs and symbols
Nonaka & Takeuchi (1995)	Tacit vs. explicit
Moss (2001)	Personal, cultural, technological, and strategic
Brown & Duguid (2001)	Sticky vs. leaky
Hargedon & Fanelli (2002)	Empirical vs. latent Knowledge as artifact and knowledge as possibility
Postrel (2002)	Specialized knowledge; knowledge as input; knowledge as asset

Habermas' analysis of systems of knowledge conceptualized a framework in which he suggested "three basic types of knowledge that encompass the full range of human reason" (Turner, 1991, p. 261). He considered the range of human interests that compels a search for knowledge. In his typology, Habermas began with three basic needs of humans: the need to survive, the need to relate to others, and the need to grow and develop potential. According to Habermas, these needs were manifested in a desire to understand how to control the environment (technical interests), to communicate and be understood (practical interests), and to be free to pursue interests and desires

(emancipatory interests). These needs and their associated interests generated three different types of knowledge through distinct mediums: (a) the need to control the environment generates empirical or analytical knowledge through the medium of work; (b) the need to understand and be understood by others generates hermeneutic and historical knowledge through the medium of language; and (c) the need to actualize potential generates critical knowledge through the medium of authority. Table 2-4 provides a concise view of Habermas' distinctions between types of knowledge.

Table 2-4
Functional Needs, Interests, Types of Knowledge, and Media

Functional needs	Interests	Knowledge	Media
Material survival and social reproduction generate pressures for	Technical control of the environment which leads to the development of	Empirical/analytic knowledge, which is achieved through	Work
Continuity of social relations generates pressures for	Practical understanding through interpretations of others; subjective states, which leads to the development of	Hermeneutic and historical knowledge, which is achieved through	Language
Desires for fulfillment generate pressures for	Emancipation from unnecessary domination, which leads to the development of	Critical theory, which is achieved through	Authority

Note. Adapted from Turner, 1991.

My study was particularly focused on the potential for knowledge creation within the leadership group. Within Habermas' framework, each type of knowledge is understood to be generated in the actions of individuals seeking survival, connection, or actualization. The connection between this process as it occurs at the individual level and the group level can be found in the patterns that are generated in communicative interaction. For example, if members of a leadership group seek connection with one another, they develop knowledge about group interaction. As they learn how to produce recurrent validating patterns, those patterns will shape their behavior. In the context of structuration theory, these actions recur in patterns that generate structures. Here,

knowledge, constituted in social interaction, may be viewed as a resource, a structuring property of social relations (Giddens, 1979, 1984).

When knowledge is viewed as a means by which people accomplish tasks in day-to-day life, there is the risk that it will be objectified and its dynamic nature obscured. Brown and Duguid (2001) suggested getting beyond the idea of knowledge as having a defined essence by exploring knowledge through the lens of practice (p. 200). They argued that knowledge is created in practice. Hargedon and Fanelli (2002) expanded this focus and proposed a structuration-based perspective on knowledge. They argued that knowledge is not just socially constructed but is itself an ongoing social process shaping and being shaped by knowledgeable actors. Comparing two qualities of this social process, learning (empirical knowledge) and innovation (latent knowledge), Hargedon and Fanelli (2002) suggested that from a learning perspective, "knowledge is an empirical construct, representing the potential for acquiring and replicating existing actions; and that from an innovation perspective, knowledge is a latent construct, representing the potential for generating novel actions" (p. 293).

A recent study exposed groups of managers, teachers, and students to a structured "collaborative knowledge creation process" (Jakubik, 2008, p. 10) and found that the structured process assisted group members in reflecting on their interactive process as it related to the construction of new knowledge. What is important about this study is that it reflects an extension of the study of dynamic interactive process across the scholarly and practitioner conversations about knowledge creation.

Orlikowski (2002) took the notion of duality in another direction and built a stronger extension of structuration theory that could be used to study dynamic interactive

process. She reviewed recent research on organizational knowledge and distilled it into two primary conceptualizations. The first framework, emerging from the works of Nelson and Winter, Hedlund, Nonaka, and others, was oriented toward studying types of knowledge and ways in which it was classified. The second framework, derived from the works of Tsoukas, Boland and Tenkasi, Cook and Brown, and others, conceptualized organizational knowledge as *in process* and *emergent*. Likewise, extending structuration theory, Berends et al. (2003) defined organizational learning in terms of practice "via the development of knowledge, realized in social practices" (p. 1052). This conceptualization of organizational learning based on an empirical study of learning in an industrial research laboratory recognized that "knowledgeable actors are necessary to creatively realize processes" (p. 1053) and that social practices both shaped and were shaped by the structures they created.

Building on these theoretical orientations to organizational knowledge, and extending Giddens' definition of knowledgeability, Orlikowski (2002) viewed "knowledge as enacted—every day and over time—in people's practices" (p. 250) and asserted that the relationship between knowledge and practice is reciprocal, thereby extending Giddens' concept of knowledgeability (1984) to a focus on the "knowledgeability of action" or "knowing-in-practice" (p. 251). Orlikowski conceptualized knowing in practice as a duality, in which knowing shapes practice and practice reciprocally shapes knowing. It is in the dynamic interactions between and among actors that the mutual reshaping of practice and knowing can be observed.

In summary, this study has recognized that there are various approaches to learning and knowledge creation as individual, group, and organizational processes. This

study has emphasized Schwandt's collective cognition model (1997) in which learning and knowledge creation are understood to occur in social interaction, generating ideas, perspectives, and actions that shape the meaning frames of individuals and the cultural assumptions of the collective. Additionally, Orlikowski's conceptualization of knowing in practice has provided an orientation to the interpretation of the findings. Further, focused on dynamic interactive process, this study has sought to enlarge understanding of the relationship between the individual, group, and organizational levels of analysis. This research suggests that the relationship between levels is to be found in dynamic interactive process, where the development of recursive patterns shapes the actions and structures that form the linkages between levels.

The final domain relevant to this study is the leadership team, as discussed in the next section.

Leadership Teams

This section reviews the theoretical and empirical literature on leadership, as it has developed from an emphasis on the relationship between demographics and leadership team performance to a focus on dynamic process within the group. There is extant literature on top leadership teams, defined as small groups of executives who report directly to the CEO of an organization (Hambrick, 1995; Katzenbach, 1998b). These groups may include chief officers, senior vice presidents, and vice presidents. For the purposes of this study, I have also included a focus on the mid-level leadership group in a hospital, comprising a chief nursing officer and the directors who report to her. In this study, the term *leadership group* is used to refer to leadership groups at both the top

and mid levels of the organization. For purposes of clarity, when referring to the top level of leadership, I use the term *top management team* (TMT).

Most of the research on leadership groups is focused on TMTs. A review of the literature on nursing leadership teams using three databases (ABI/Inform Complete Plus, JSTOR, and Journals@Ovid [biomedical]) manifested a gap in the theoretical and empirical research specific to the top level of nursing leadership in a hospital. Nursing leadership literature tends to focus on operational issues, specifically on issues of managing nursing staffs. While this study is not focused specifically on nursing leadership, the findings from this study may open conversation, particularly on the reciprocal shaping of structure and action within top nursing leadership groups.

TMTs have been a focus for research since 1980 (Hambrick, 1995). Theoretical and empirical work on TMTs has primarily developed from the groundbreaking paper of Hambrick and Mason (1984), which suggested that characteristics in TMTs could predict organizational outcomes. Numerous quantitative studies have emerged from this theoretical framework generated by variance methodologies in which relationships between TMT demographics and various organizational outcomes have been measured. More recently, with numerous calls for investigation into the "black box" of dynamic processes being acted out in the TMT, researchers have utilized qualitative methodologies to develop case studies. These efforts have generated conceptual frameworks emerging from a nonlinear complexity perspective.

This overview of the TMT literature begins by tracing the development of upper echelons theory, using various empirical studies to evaluate the strengths and challenges

of this approach, followed by a focus on qualitative approaches to the leadership group in general.

Upper Echelons Theory

The relationship between management team characteristics and numerous organizational outcomes was first suggested as a focus of study by Pfeffer (1981) and was extended by Hambrick and Mason (1984). Their work has become foundational for research on TMTs. Their seminal work on "upper echelons" (p. 193) has been hailed as the "central catalyst" (Carpenter, Geletkanyez, & Sanders, 2004, p. 750), generating over 500 articles in refereed journals over the past 20 years. The development of the upper echelons theoretical framework generated a methodology of comparing executive characteristics and organizational outcomes (Carpenter et al., 2004).

Hambrick and Mason (1984) suggested that strategic decision-making by executives involved more than a "quest for economic optimization" (p. 194). Acknowledging the bounded rationality (March & Simon, 1958) of executive leaders, Hambrick and Mason (1984) extended Cyert and March's theory of the firm (1963) and suggested that strategic decision-making by executives was also based on the traits and characteristics of the executives themselves. This movement of the study of strategy development from its focus on economics to a focus that would include the characteristics of the strategists motivated examination of the traits and behaviors of the CEO (Hambrick & Mason, 1984). In the development of upper echelons theory, Hambrick and Mason (1984) suggested that extending the study of management decision-making from the CEO to executive team members would strengthen the predictive value of the theory.

The upper echelons model argues from three fundamental assumptions. First, organizational performance is a reflection of the cognitive and values foundation of the executives in the organization. Second, observable managerial characteristics such as background education, tenure in the organization, and socioeconomic status are reflections of the cognitive and values foundation of the executives. Third, these observable characteristics can be correlated with organizational outcomes (Hambrick & Mason, 1984). The development of the "upper echelons" perspective (p. 198) focused on the relationship between observable characteristics of management teams and organizational outcomes and performance. These demographic characteristics were identified as valid proxies for the cognitive and value bases of management team behavior (Carpenter et al., 2004). For example, in one study, analysis of data from document reviews suggested that TMT heterogeneity and group processes impacted team innovation (West & Anderson, 1996). In another study, also based largely on document reviews consisting of questionnaires, the relationship between TMT heterogeneity and strategic consensus was found to be strengthened by group process variables (Knight et al., 1999). For over 20 years, research spawned by the upper echelons model has generated extensive studies comparing the composition of management teams with various strategic and organizational outcomes (Carpenter et al., 2004). Figure 2-3 provides an illustration of the upper echelons conceptual framework.

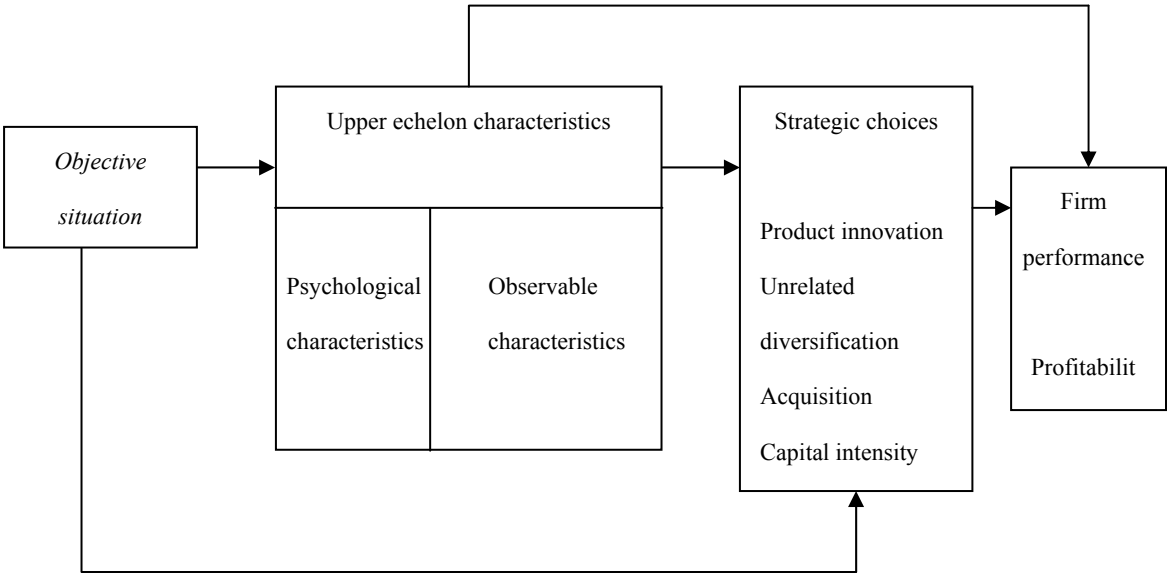

Figure 2-3. Model of Hambrick and Mason's (1984) upper echelons perspective of organizations. Adapted from Carpenter et al., 2004.

The study of leadership as it relates to organizational outcomes has been criticized for being so tightly coupled with performance that the relationship between leadership and other value-driven dimensions of organization has been overlooked (Podolny, Khurana, & Hill-Popper, 2005). Here it is argued that there is a need to look beyond the relationship between leadership and economics, focusing instead on the "importance of leadership in terms of its ability to infuse purpose and meaning into the organizational experience" (Podolny et al., 2005, p. 5).

Varied definitions of the management team have developed within the organizational literature. TMTs may be reflective of those executives in the organizational hierarchy that report directly to the CEO (Hambrick & Mason, 1984). Another representation of the leadership team is that of a "group of people who collectively provide strategic, operational and institutional leadership" (Ancona & Nadler, 1989, p. 20). In most research, this construct is often aligned with "Cyert and

March's 'dominant coalition'" (Carpenter et al., 2004, p. 753), a powerful alliance of organizational leaders whose decision-making influences outcomes in the organization.

On closer examination, the concept of "team" has not always fit management behaviors. In pointing out the impact of fragmentation in the TMT, both Hambrick (1995) and Katzenbach (1998a) suggested that strategic decision-making is not always the product of "team" performance. Hambrick (1995) suggested that "leadership group" (p. 116) is a more accurate descriptor and allows for inclusion of significant actors in the organization who do not directly report to the CEO, such as vice presidents, subject matter experts, and, in the case of a hospital, physicians. In another study, recognizing the distinction between the TMT and the dominant coalition, membership was described as "fluid . . . consisting of a 'stable core group' combined with a 'dynamic periphery'" (Roberto, 2003, p. 123). In still other instances, the management team is organized around strategic decision-making (Carpenter et al., 2004; Katzenbach, 1998a) in which membership in the TMT is flexible. Katzenbach (1998a) concluded that in these instances, the requirements of a specific situation ought to inform the implementation of a team approach or a unilateral CEO approach to decision-making.

In addition to defining TMTs, there is also a need to clarify the distinction between TMTs and other managerial teams. Ancona and Nadler (1989) identified eight features of TMTs that differentiated them from other managerial coalitions: (1) the need for focus on and engagement with the external environment, (2) the complexity of the problem-solving and decision-making tasks, (3) the context of power relations, (4) CEO succession issues, (5) public visibility, (6) a competitive, achievement-focused

orientation, (7) the status of team membership, and (8) CEO power and position as team leader (pp. 22-23).

In this study, the leadership group was understood to be a collective in which members were often positioned according to status with the CEO or the chief nursing officer. The groups manifested permeable boundaries, jointly "providing strategic, operational, and institutional leadership" (Ancona & Nadler, 1989, p. 20). In other words, the study focused specifically on those individuals who reported directly to the CEO or chief nursing officer but did not exclude others in the organization who had substantial influence in the conversations that shaped the context of the leadership group.

While research on TMTs has continued to extend the work of Hambrick and Mason (1984) (Bantel, 1989; Church & Waclawski, 1998; Hambrick & Mason, 1984; Knight et al., 1999; Michel & Hambrick, 1999; Murray, 1989; Wiersema & Bantel, 1992) by examining the relationship between TMT demographics and organizational outcomes, another stream of research developed in the field of psychology and involved group process. In particular, this line of inquiry highlighted the role of cognition in group problem-solving. More frequently, interest in TMTs has developed from demography theory. Table 2-5 highlights a sample of publications in this research stream.

Table 2-5
Sample of Upper Echelons Research (1984-2004)

	Research focus	**Methodology**	**Key outcomes**
Hambrick & Mason (1984)	Review of upper echelons literature	Theoretical review of pervious studies; researcher speculation	A set of propositions was developed relating specific demographics to organizational outcomes.
Murray (1989)	Relationship of TMT composition and organizational performance	Study spanning 14 years developing measures to analyze observations, demographics, and measures of performance	Partial results suggested a relationship between the success of a homogeneous group in a competitive environment and a heterogeneous group in a change environment.
Bantel (1989)	Relationship between demographics of management teams and propensity for innovation	Quantitative analysis of data gathered from 199 banks through the use of two questionnaires developed by the researchers	Innovations can be correlated with the education level and diversity of management teams.
Wiersema & Bantel (1992)	Relationship between TMT demographics and corporate strategic change	Quantitative analysis of demographic data on team members and corporate documentation of diversification strategy	TMT cognitive perspectives were related to the proclivity for strategic change.
Keck (1997)	Relationship between TMT structure and financial performance in different environmental structures over time	Quantitative analysis based on survey data collected from public records on 74 firms	A positive relationship was identified between firm financial success and a match between team structure (related to homogeneity and heterogeneity) and environmental context.
Church & Waclawski (1998)	Relationship between leader personality type and leadership behavior	Quantitative analysis of data collected from two personality inventories and a measure of transactional/ transformational leadership	A positive relationship was identified between specific personality types and transactional /transformational leader behavior.
Knight et al. (1999)	Relationship of demographic diversity and group process to strategic consensus (development of shared mental models) of TMT	Quantitative analysis of data collected from interviews and a questionnaire	A negative relationship was identified between TMT diversity and strategic consensus; the research raised new questions related to strategic consensus and group process.
Michel & Hambrick (1999)	Archival study	Quantitative analysis of data collected from public records on 134 firms	The degree of social cohesion and the knowledge base in upper managers was related to firm interdependence behaviors.
Kilduff et al. (2000)	Relationship between demographics and cognitive team diversity	Quantitative analysis of data obtained from outcome measures developed for a simulation game involving 159 managers in European firms	No relationship was found between demographic diversity and cognitive diversity; a link was found between age heterogeneity among team members and increased team performance.

	Research focus	Methodology	Key outcomes
Barsade et al. (2000)	Relationship between trait positive affect and group attitude and process	Quantitative analysis of questionnaires distributed to 62 CEOs and 232 of their managers designed to identify personality traits and account for demographic information	Greater alignment between manager and team members with respect to trait positive affect produced a higher degree of satisfaction about interpersonal relationships.
Jensen & Zajac (2004)	Shaping of strategic outcomes by the relationship between differing characteristics of TMTs as they are mediated by organizational contexts	Quantitative analysis of data obtained from public records on 200 Fortune 500 industrial corporations	The relationship between TMTs and strategy was impacted by both demographics and governance position within the organization.

This sampling of empirical research demonstrates the wide scope of interest and investigation into the relationship between executive demographics and organizational outcomes. The development of upper echelons research prior to 1996 has been summarized and reviewed by Jackson in 1992 and Finkelstein and Hambrick in 1996 (Carpenter et al., 2004). More recently, Carpenter et al. (2004) provided a comprehensive look at the development of this research stream since 1996, in which they presented a perspective that both argued for the generalizability of the theory and suggested that the results of many studies remain inconclusive (p. 752).

Carpenter et al. (2004) acknowledged that upper echelons research left some questions unanswered. However, in arguing for the development of more sophisticated *measures* "of mechanisms and processes that affect management cognition, values, and perceptions, and consequently, strategic choices" (p. 772), they overlooked the contribution to be made by other methodologies, specifically those designed to answer process-focused inquiries.

The Qualitative Approach to Leadership Groups

Until recently, research emerging from qualitative methodologies has focused primarily on the construct of leadership, with little investigation of the processes and dynamics of leadership teams (Bryman, 2004). A comprehensive summary of this line of inquiry has generated numerous studies exploring various concepts and dimensions of leadership, including perceptions of good leadership, charismatic leadership, servant leadership, and leadership as an expression of organizational culture (Bryman, 2004).

Simultaneously, numerous researchers have suggested a direction for future research that is process rather than variance focused (Langley, 1999). Variance-focused research emerges from theoretical orientations directed to the study of relationships between variables. A distinctly different orientation, process-focused research concerns itself with describing events and "understanding patterns in events" (p. 692), an orientation that lends itself to the methodologies of qualitative research.

As early as 1989, researchers recognized the limitations of the upper echelons stream of research. They encouraged case study approaches in which research investigations were designed to directly observe and interview TMTs in an effort to build knowledge related to the "patterns of interaction among team members" (Hurst, Rush, & White, 1989, p. 102). While upper echelons research was demonstrating quantitatively the relationship between various TMT compositions and organizational outcomes, there was a growing awareness in the research community of the need to open up the "black box" containing "the essence of enquiry for the process scholar, the emergence, developments, conduct, impact, and performance of the team itself" (Pettigrew, 1992, p. 178).

During the mid 1990s, researchers focused on leadership teams recognized the value in shifting the focus from specific leader behaviors and characteristics to a focus on process (Simpson & Beeby, 1993). An effort to "direct much more attention to top management team processes—the actual communication, interaction, and influence patterns within teams" (Hambrick, 1995, p. 125) was under way. Even those researchers conducting studies focused on composition and demographics recognized that the prevailing focus on TMT composition "was inherently limited and would only realize its potential when matters of process were also incorporated" (p. 126).

Findings and conclusions about strategy development and decision-making were questioned. Roberto (2003) found that while TMTs interacted regularly and performed some collective functions, most strategic decision-making involved a subset of the TMT working with other leaders in the organization. He suggested that strategic processes unfold across multiple layers of the organization, thus refocusing strategy investigations on other levels of the organization. Additionally, as ideas from structuration theory (Giddens, 1984) and complexity theory (Stacey, 1995) have made their way into the TMT discourse, the notion of the structure-process-outcome model has been disputed. From this orientation, decision-making is being reframed as an emergent process that begins in conversation between a few individuals. Discussions about the nature of structure and process have led to the suggestion that rather than structure informing the decision-making of the group, the "decision process may actually shape the formation of the group's structure" (Roberto, 2003, p. 130).

Researchers were beginning to acknowledge the difficulty in developing investigations into TMT process using methodologies designed to test relationships

between variables. In a study of cognitive mental models in TMTs, researchers acknowledged the limitations of survey methods and suggested that future studies include methodologies that "would entail non-quantitative cognitive elicitation" (Knight et al., 1999, p. 461). There was a growing call for relational research studies focused on "how people decide, act, and present themselves to each other" (Murrell, 1997, p. 39).

At the same time, it was argued that data from studies linking demographics to strategic outcomes had produced inconclusive results (Edmondson, 2003). Edmondson et al. (2003) identified three limitations of the upper echelons literature that have been generated by the original Hambrick and Mason (1984) paper. First, demographic characteristics were used as proxies for cognitive and value foundations of behavior. Second, Hambrick (1995) himself acknowledged that TMT research brought "too little attention to the actual mechanisms that serve to convert group characteristics into organization outcomes" (p. 185). Finally, most demographic studies fail to account for context, defined here as "the circumstances that form the setting for an event, statement, or idea" (*Concise Oxford English Dictionary*, 2004, p. 308).

As an approach to a dynamic model, Edmondson et al. (2003) took into account the relationship between the TMT, its context, and its environment. They integrated insights emerging from leadership theory, group process and team theory, and negotiation into a dynamic model of senior team leadership. They argued that leadership group dynamics need to be managed by the leader, usually the CEO. They prescribed a contingency model in which specific process interventions were suggested for each situation-specific scenario.

What is most relevant about this work is the focus on the dynamic process between leaders and their situation or environments (Edmondson, 2003). Figure 2-4 depicts team dynamics as mediators of the relationship between TMT demographics and outcomes.

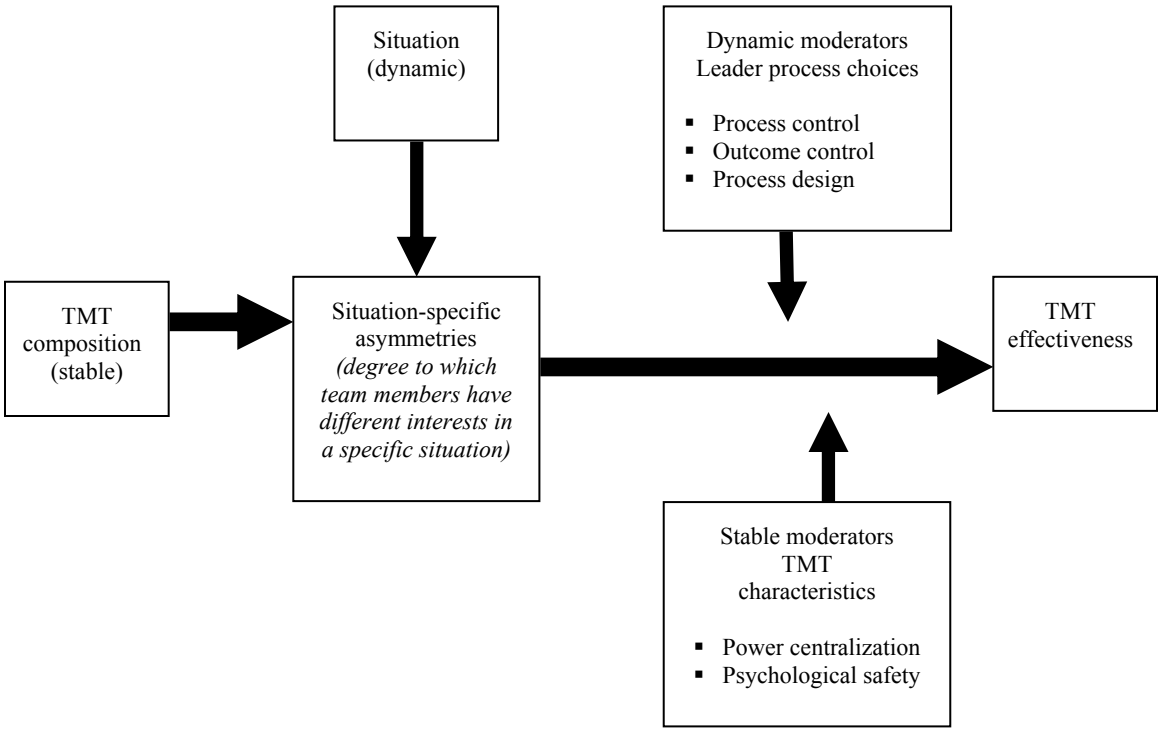

Figure 2-4. The relationship of team dynamics to processes and outcomes. Adapted from Edmondson et al., 2003.

To date, research indicates that while the dynamics of leadership group interactions shape the evolution of the organization (Ancona & Nadler, 1989; Carpenter et al., 2004; Edmondson, 2003; Hambrick, 1995; Hambrick & Mason, 1984; Hurst et al., 1989; Katzenbach, 1998a; Schein, 1992a, 1992b), few studies have examined and described these interactive dynamics (Carpenter et al., 2004; Denis et al., 2001; Roberto, 2003). Until recently, the primary question surrounding the study of leadership team

dynamics has been *how:* How does a researcher study dynamic processes? What can be observed? What can emerge from interviews? What can be gleaned from archival data? Denis et al. (2001) met these questions with a deliberate approach to the study of TMT dynamics in a pluralistic organization engaged in a major change process. They focused on five case studies in healthcare organizations in Canada and aimed to understand the roles played by members of the collective leadership group that shaped organizational change. Through direct observation over time, structured and informal interviews, and extensive review of documents and artifacts, the researchers identified and developed a theoretical representation of the dynamics involved in the leadership processes in these highly complex organizations (Denis et al., 2001).

While Denis et al.'s research moved the study of leadership group dynamics forward, their work depended primarily on researcher interpretation of observational and interview data. Recent efforts at conducting empirical research utilizing structuration as a framework have included a suggested methodology that integrates structuration theory with institutional theory (Barley & Tolbert, 1997). Within this approach, institutions are viewed as the enactment of scripts, "*observable, recurrent activities and patterns of interaction characteristic of a particular setting*" (Barley & Tolbert, 1997, p. 98). In response to the challenges inherent in attempting to analyze the *ongoing-ness* of collective interaction, Barley and Tolbert directed the researcher to identify patterns within units of observation and compare them retrospectively to change events. This approach has moved the research to a deliberate focus on interaction. Barley and Tolbert's work has moved closer to a recognition that in order to understand organization, there is a need to study interaction among members of a group.

Enlarging the argument for a focus on interaction, Taylor and van Every (2000) adjusted the language of research slightly by asserting clearly that "the study of organization is in fact the study of communication" (p. xi), with language as the medium through which experience is enacted and recorded. In other words, the interactive communication that goes on between and among members of a group is the inherent kernel needing to be opened and studied.

While structuration theory (Giddens, 1979, 1984) provides a framework for understanding the duality of process and structure, Giddens has provided scant insight about how to operationalize his theory. With the introduction of conversation analysis (Boden, 1994; Cooren, 2001, 2004, 2006; Huisman, 2001; Pomerantz & Fehr, 1997; Psathas, 1995; J. R. Taylor & Van Every, 2000; Ten Have, 1999) as an analytical tool, empirical research is able to penetrate deeper into the dynamics of social interaction by concentrating on the turns of talk of interactants.

Conclusion

The literature reviewed has provided a framework supporting the research on the dynamic interactive processes in a leadership group that enact learning and knowledge creation. Four major dimensions of focus distinguished the literature in this section: structuration theory related to dynamic interactive process, collective cognition, knowledge creation in groups, and the leadership group. Following is a summary of the significant issues in each area that motivated this study.

First, the study of dynamic process is still developing in the organizational studies landscape. Giddens, along with others who have extended his work both theoretically and empirically (Bantel, 1989; Cassell, 1993; Cohen, 1989; Denis et al., 2001; Glynn et al.,

1994; Hargedon & Fanelli, 2002; Heracleous & Hendry, 2000; Poole et al., 1985; Stacey, 2001; Starbuck & Milliken, 1988; J. R. Taylor & Van Every, 2000; Thompson, 1989; Turner, 1991; Weick, 1995), has opened a research stream that seeks to enlarge an understanding of dynamic process. That work must continue to be extended into many dimensions of organizing.

Second, the research on organizational learning has brought to light the issue of multilevel research. Structuration theory (Giddens, 1979, 1984) provides a way to understand that individual, group, and organizational structures cross levels and mutually shape each other through the recursive patterning of communicative interaction. This study has extended understanding of the connections between levels by focusing on the interactive patterning that constructs those linkages.

Schwandt's OLSM has provided a framework within which to understand dynamic interactive process related to learning and knowledge creation. The learning subsystems and the interchange media have provided a conceptualization that allows researchers to manage the complexity of learning processes at the organizational level. The model can be adapted to the group level and, in conjunction with structuration theory, has provided a way to conceptualize the patterning of actions and structures that enact learning.

Third, for purposes of this study, knowledge is viewed as a resource (Giddens, 1984) that is socially constructed (Berger & Luckmann, 1966; Schutz, 1967) in the communicative interaction between and among members of the leadership group. Habermas' framework (1971) conceptualizes three types of knowledge—technical, practical, and emancipatory—generated in the patterns of communicative interaction.

According to Brooks (1994), power relating within a group shapes the creation and distribution of knowledge.

Fourth, much has been learned from the demographic research on management teams about the relationship between TMTs and organizational performance and effectiveness. Little research has been done on the dynamic processes of nursing leadership teams. There is a demonstrated need to increase knowledge about the dynamic processes that shape the structures and actions of these leadership groups. While efforts have been made to fill that gap, there does not appear to have been a close examination of the dynamic interactive processes in a leadership group that specifically enact learning and knowledge creation.

This study sought to fill that gap by glimpsing the inner workings of a leadership group as it enacted learning and knowledge creation. Methodological decisions critical to the reliability and value of this study are discussed in chapter 3.

CHAPTER 3:

METHODOLOGY

> Perception is strong and sight weak. In strategy it is important to see distant things as if they were close and to take a distanced view of close things. —Miyamoto Musashi (1584-1645) (Patton, 2002, p. 38)

This study examined the dynamic interactive processes within a hospital leadership group that enact a context for learning and knowledge creation within the group. Given the process orientation of the research question, a multiple descriptive case study strategy was designed, using qualitative methods in the planning, data collection, and data analysis. The following discussion provides an overview of the research design, case selection process, methods of data collection and analysis, and techniques for ensuring the trustworthiness of the study. The chapter concludes with a consideration of ethical issues.

A multiple case study was designed in which two hospital leadership groups were selected to participate. Data collection methods included semistructured in-depth individual interviews, detailed observation of the leadership group meetings, informal conversations with leadership group members, and an analysis of multiple documentary sources, including organizational charts and meeting agendas.

Design

Creswell (1998) defined a case study as "an exploration of a 'bounded system . . . over time through detailed, in-depth data collection involving multiple sources of information rich in context" (p. 61). A multiple case study design was selected based on Yin's perspective that a "two case" case study has the potential to strengthen the analysis (2003, p. 53). The strength of the analysis and the potential transferability of implications

are enhanced when cases derive from different contexts. “If under these varied circumstances you still can arrive at common conclusions from both cases, they will have immeasurably expanded the external generalizability of your findings, again compared to those from a single case alone” (Yin, 2003, p. 53).

The bounded systems explored in this multiple case study were two hospital leadership groups. The groups were each bounded by time (the data collection extended over a period of 5 months) and space (the data collection occurred within the physical space of each hospital). Data gathered in the course of observation, interviews, and examination of documents and artifacts were analyzed and synthesized against the backdrop of each leadership group’s context (Creswell, 1998; Patton, 2002). In other words, each case was managed as a single case which, according to Stake (1995) and Yin (2003), allows conclusions emanating from each case to be used as findings contributing to the whole study.

Selection of the Cases

The initial research design called for enlisting the support of a panel of experts on hospital leadership to assist in identifying two highly collaborative leadership groups that could serve as exemplars with respect to learning and knowledge creation. The selection of exemplars was intended to provide a lens into dynamic interactions in which learning and knowledge creation were enacted. Months of searching produced no viable leadership groups for the study. Ultimately, letters of invitation (see Appendix B) describing the study were sent to 16 hospital chief executive officers (CEOs) either known to me or identified by a reliable consultant or colleague. Of the 16, three

responded, and one agreed to a preliminary interview to determine whether or not to participate.

An exploratory interview was conducted with the CEO of Urban Hospital, who had already discussed the possibility of the study with his team. During the interview it was agreed that the Urban Hospital senior leadership team would participate in the study. Still dedicated to the idea of identifying two leadership groups, consideration of the Community Hospital nursing leadership group emerged in a conversation in which it became clear that the group possessed some of the desired criteria and was interested in participating in the study.

As I was an employee of Community Hospital, the admission of the nursing group into the study generated a participant-observer structure for this case. I was mindful of the liabilities of this approach, including the potential biases produced from having, at times, to assume a consultant role to the nursing division. I also appreciated the advantage that having experienced knowledge of the context afforded me for this study.

Data Collection

The primary sources of data collected for this study included the following "sources of evidence" (Yin, 2003, p. 85): direct observation of leadership group interactions in formal and informal settings, semistructured interviews and informal conversations with members of the leadership group, and a review of documents deemed relevant to this study. In the case of Community Hospital, my access to the day-to-day business of the hospital was recognized as a relevant component of data collection. Refinement of the data collection process continued throughout the study.

In addition, I had a broader knowledge of the context of *hospital*, having worked as a hospital consultant/employee for 10 years prior to commencing this study. "Understanding context is essential to a holistic perspective" (Patton, 2002, p. 262) and to the researcher's ability to interpret leadership group conversation and to identify recursive patterns of interaction. The credibility of the study in relation to context was addressed by gathering different kinds of data, thus providing opportunities for cross-validation and triangulation of findings (p. 331).

It was my initial intention to sequence the collection and analysis of data, focusing on each hospital separately. According to Patton (2002) and Yin (2003), this process enables the researcher to use the experience of data collection and analysis in Case 1 to refine the methods used in Case 2. However, the availability of participants and other scheduling constraints led to a process where data collection and beginning stages of analysis were conducted over the same period of time for both hospitals. When the data collection ended, analysis of the remaining data from interviews and observations of the leadership group at Urban Hospital was completed prior to re-engaging with the data from Community Hospital.

Leadership group processes were observed during formal leadership group meetings and selected scheduled meetings between members of the leadership group and the employees who worked in their divisions. In the case of Urban Hospital, I also observed selected scheduled one-on-one meetings between members of the leadership group and the CEO. Selected meetings and conversations were recorded when permission was obtained from the participants and the content was expected to be salient to this study.

Along with observation, information collected through interviewing the members of the leadership group individually formed a core data source for this study. Data were collected by way of audio recordings, note-taking, and record-keeping. I maintained field notes as well as a personal journal in which reflections, thoughts, observations, and reactions to the engagement with the leadership groups were recorded. During this phase, I also participated in meetings with my advisor to discuss my early reactions to the data. A semistructured protocol guided interviews with leadership group members. Informal conversations provided additional opportunities to become acquainted with leadership group members' orientation to their respective groups.

In the case of Urban Hospital, the study of organizational documents provided additional data through which to understand the particular context in which that hospital was situated. Reviewed documents included organizational charts, meeting agendas, marketing materials, patient survey data, publications, and information available through the hospital webpage. These documents helped to construct an understanding of the positioning of the leadership group within the hospital.

Data Analysis

In this study, the analysis began as data were collected. Leadership group meetings were observed in each hospital before individual interviews with leadership group members were scheduled. Field notes developed during direct observation of leadership group interactions were written shortly after those meetings. Audio recordings of interviews were transcribed word for word, and transcripts were returned to the respective leaders for confirmation and approval.

In the first phase of analysis, each interview transcript was reviewed line by line,

and a set of 210 codes was generated based on key words used by group members. Utilizing the hierarchical coding structure provided in NVivo, a set of themes was identified by linking codes to the theoretical assumptions and constructs. The themes were reviewed several times as the data were refined and linked back to Giddens' structures and modalities, ultimately producing a description of the leadership group members' perception of their collective. In addition, following an analysis of the observation data, the interview data analysis illuminated and clarified observations as well as confirming and challenging an assessment of patterning processes.

In the second phase, tools from the domain of conversation analysis (Boden, 1994; Pomerantz & Fehr, 1997; Psathas, 1995; Ten Have, 1999; Zimmerman & Boden, 1991) were utilized to study the data derived from the observations of leadership group meetings. Meeting transcripts were reviewed line by line, and audio recordings were played and replayed. Conversation analysis, which assumes that human interaction is "organizational and procedural" (Ten Have, 1999, p. 9), provided an opportunity to closely study the interactions among members of the leadership groups. In addition, conversation analysis derives from the assumption that a priori–based inferences about social practices neglect dimensions of interaction that may have significant relevance for the actors (Pomerantz & Fehr, 1997). This point is salient with respect to interpretations about power—and because the distribution of power in a group is a central theme within structuration, the application of conversation analysis to the examination of these data was particularly apt.

Conversation analysis focuses on turns of talk as the concrete foundation for social interaction (Zimmerman & Boden, 1991). Specific sequences of turns of talk

enacted during leadership group meetings were identified that either provoked interest and/or suggested they might offer insight into the interactions occurring within the leadership group (Pomerantz & Fehr, 1997) that were enacting learning or knowledge creation. The action occurring in a turn of talk is the basic analytic concept for conversation analysis (Pomerantz & Fehr, 1997). Thus, each conversation sequence was coded according to the action taking place in each turn of talk. Examples of actions include questioning, querying, informing, reporting, experimenting, speaking out, and so forth (see Appendix A). The learning actions were further analyzed by reflecting back and forth between the actions being identified in the transcripts and the structurating properties defined by Giddens (1984).

As the analysis for each case concluded, findings from both cases were reviewed from the perspective of the whole. It was during this phase that I began to design the narrative that would become chapter 4, reflecting the accumulated analysis from both Case 1 and Case 2. The process of conducting the analysis and constructing that narrative shaped the development of conclusions presented in chapter 5.

Methodological Issues

While this study was not grounded in the phenomenological tradition, insights gleaned from Schutz' work (1967) on intersubjectivity were applied to the interpretation of the data collected for this study. According to Schutz (1967), intersubjectivity is a process of linking the outward expression of one individual into a context of meaning that can be understood by another *precisely* because the other can make interpretations based on his or her own similar experiences. This understanding of the intersubjective interpretation of meaning (Schutz, 1967) guided the data collection and analysis process

of this study. According to Schutz, the intended meaning assigned to an experience is always subjective. This presents the researcher with the fundamental question of the social sciences: “How are sciences of subjective meaning-context possible?” (Schutz, 1967, p. 223).

Schutz (1967) answered this question by outlining a path for the study of subjective experience. The first step begins with the acknowledgment that no individual can precisely comprehend the experience of another individual. Interpretations assigned to experience develop out of meaning schemes, frames of reference that enable one to understand and interact in the world. Second, the researcher needs to acknowledge that engaging with another precipitates an altering of experience for the other (Creswell, 1998). When a researcher enters a social system, the researcher’s presence impacts that system and must be included as an acknowledged dimension of the study.

In this case, the research challenge was addressed through the process of bracketing, by which I recognized the distinction between everyday participation in an experience and the social scientist’s participation in the same experience. Thus, I acknowledged my own subjective experience and, at the same time, suspended that experience in order to understand and interpret the experience of the leadership group members in light of the body of knowledge of my discipline.

I made use of a personal journal during the data collection and analysis phases of this study in order to acknowledge and suspend my subjective experience. I participated in frequent conversations with my dissertation advisor, who supported my efforts to understand the experience of the leadership group. Additionally, consulting with other

experts about emerging understandings assisted in efforts to bracket my personal experience.

The criteria for evaluating qualitative research have been explored extensively (Creswell, 1998; Lincoln & Guba, 1985; Merriam, 1988; Miles & Huberman, 1994; Patton, 2002; Schutz, 1967). Scholars have outlined four criteria by which to judge the trustworthiness of a qualitative study: credibility, transferability, dependability, and confirmability.

Credibility

Among the activities needed to achieve credibility, Lincoln and Guba (1985) recommended the following: (a) prolonged engagement, (b) persistent observation, (c) triangulation, and (d) peer debriefing.

First, prolonged engagement strengthens the researcher's understanding of the culture and context within which the research phenomenon is occurring and reduces the novelty of the researcher's presence to those participating in the study. I had consulted with and worked for hospital organizations for 10 years prior to the study, providing a reasonable depth of knowledge and experience about hospital culture. In addition, I had worked extensively with a hospital senior leadership group, providing additional experience allowing an appreciation for the context of an executive leadership collective. In this study, I understood that my presence in the organization, and specifically in leadership group conversation, altered the situation, often in ways that I might not notice. I spent 5 months with the leadership group and noticed that over the duration my presence did become less novel and, thus, less a factor in group members' interaction.

Second, persistent observation is intended to provide an opportunity to look closely at the phenomenon, identifying ideas, questions, and meanings being raised, and then look again in order to uncover increasingly deeper layers of the experience. Between observations, I identified questions and noted assumptions about what I was observing and used those to focus my thinking in subsequent sessions.

Third, triangulation refers to various methods used to strengthen the credibility of the findings. These include the use of multiple sources and multiple methods for accessing the data. I engaged in triangulation by collecting individual interview data and observational data of various collective gatherings. Data derived from group observations were compared with data derived from individual interviews. Additional triangulation occurred during regular theoretical discussions with my advisor throughout the data collection and analysis phases of the study.

Finally, conferences with my dissertation advisor also fulfilled the objectives for peer debriefing sessions. The advisor's questions throughout the process contributed to credibility by helping to expose researcher biases. Further, the advisor frequently raised thoughtful queries that compelled me to clarify questions, more specifically define meanings and interpretations, test ideas, and plan next steps.

Transferability, Dependability, and Confirmability

According to Lincoln and Guba (1985), it is the researcher's responsibility to provide a store of data that will allow others to make judgments about whether the findings or the interpretation of the data would be applicable in another context. Thus, I have provided a detailed account of the methodology and the logic behind the analysis so as to allow others to determine issues of transferability.

Dependability and confirmability can be demonstrated through the utilization of an independent auditor. In this case, a doctoral colleague who had completed her studies was enlisted and provided with a robust description of the methodology as well as a sampling of the interview transcripts from each hospital leadership group and the complete transcript of one of the formal leadership group meetings from each hospital. In addition, the auditor was provided with the findings and interpretation of the data. After studying all documents provided, the auditor concluded that the findings and interpretation were supported by the data.

The Value of Qualitative Inquiry

It was not the goal of this research study to elucidate the paradigms debate with respect to the foundations for qualitative versus quantitative research. Suffice it to say that such a debate has received extensive discussion in the scholarly literature (Patton, 2002), where qualitative data are often viewed as "soft" (p. 573). Patton's response to this debate, which has been echoed by others (Creswell, 1998; Denzin & Lincoln, 2000; Lincoln & Guba, 1985), suggests that the argument for qualitative research hinges on the alignment between the methodology and the goal of the inquiry, the rigor of the research design and implementation, and the credibility of the researcher.

Perhaps one of the most significant arguments against qualitative inquiry, particularly the case study tradition, is the lack of generalizability of outcomes. According to Patton (2002), Cronbach in 1975 "concluded that social phenomena are too variable and context bound to permit very significant empirical generalizations" (p. 582). Lincoln and Guba (1985) suggested that a generalization be treated as a working hypothesis that can continue to be tested in subsequent situations. "Case studies are

undertaken to make the case understandable" (Stake, 1995, p. 85). Stake (1995) distinguished between two types of generalization: (a) *propositional,* in which a phenomenon is explicated so that the reader or listener can take the explanation and apply it to other examples of the same phenomenon; and (b) *naturalistic,* which relies on the embedded experience of the reader or listener as it resonates with the explanation. He suggested that naturalistic generalization is what makes a case recognizable to the listener or reader and makes it possible to add the knowledge learned from that one case to the reader's pool of embedded knowledge.

There is no claim that the findings from this multiple case study can be generalized. However, it is suggested that the findings may provide "a working hypothesis" for further study of leadership groups in hospitals and perhaps other settings as well.

Consideration of Human Subjects

To make certain that each participant was well informed about this research study, an information outline (see Appendix C) described the goals and purpose of the study, the nature of the data to be collected, the time and tasks required of the participants, as well as a plan for the storage of the data. In addition, the outline delineated all intended uses of the collected information. The plan also included methods for protecting the identity and confidentiality of the participants and of the participant organization, such as the assignment of codes and pseudonyms to study participants. All procedures were developed in accordance with the requirements of the George Washington University Office of Human Research Institutional Review Board as well as the Institutional Review Boards for both hospitals participating in the study.

CHAPTER 4:

FINDINGS

Chapter 4 presents the findings of this descriptive multiple case study. The major purpose of the research was to identify the dynamic interactive processes in hospital leadership groups that enact learning and knowledge creation in the group. The first two parts of the chapter present the distinct findings from each hospital leadership group within the context of structuration theory. The chapter closes with a summary of the findings as they answer the research question.

Each case is divided into three sections. The first section identifies the setting and explains the roles of each member of the team. The second section presents the analysis of the individual interview data, reflecting an examination of the group's social interaction context. The interviews provided a description of group members' perceptual schema about their own group process and how it related to learning and knowledge creation. The third section presents the analysis of the observation data from the leadership group meetings. Using the tools of conversation analysis (Boden, 1994; Pomerantz & Fehr, 1997; Ten Have, 1999), these data were examined for the micro-action taking place in the group conversation during these meetings. A summary of the data collection process for both hospitals is provided in Table 4-1.

Table 4-1
Summary of Data Collected

Hospital leadership teams	In-depth interviews	Formal observations	Informal observations	Field notes and researcher journal
Urban Hospital top leadership team	• CEO—one interview • SVPs—six interviews • 258 pages of interview transcripts	• Top leadership group—three meetings • 76 pages of transcription from one meeting • CEO with AVPs and directors—one meeting	• CEO rounding on two medical units (visiting nursing units to meet with patients and staff) • Informal observations in executive suite—3 hours	21 pages of notes
Community Hospital nursing leadership team	• CNO—two interviews • NDs—three interviews • 213 pages of interview transcripts	• Nursing leadership meetings—one • 166 pages of transcription from one meeting • Nursing leadership and nurse managers—two meetings	• Individuals and team in the context of work at Community Hospital	12 pages of notes

CEO indicates chief executive officer; CNO, chief nursing officer; SVP, senior vice president; ND, nursing director; AVP, assistant vice president.

The initial coding of the data reflected an inductive approach. The point was to locate the significant themes in the codes and patterns that emerged from the interview data. Taken together, the individual interviews provided a profile that reflects the frame of reference within which group members act. The initial readings of the interview transcripts of both cases generated 210 codes, which were entered into NVivo software.

In the next step of analysis, the codes were examined against the theoretical framework for this study, and 54 second-level codes (tree nodes) were generated. At this point, a delineation was made between cases so that an understanding of the process of each group could be clarified. Each case was studied by iteratively looking back and forth between the codes and the transcripts. This concentrated focus led to an understanding of

how the leadership groups perceived themselves as a group and how they understood learning and knowledge creation within the group.

Next, the codes and patterns were combined, reduced, and finally integrated into what emerged for each group as the dimensions of the collective perception of their social interaction. These dimensions were refined as they were each considered through an iterative process of working back and forth between the data, the research question and subquestions, and the guiding framework of structuration theory. This process took into account (a) the open-ended questions used in the interviews, (b) repeated review of the transcripts and repeated listening of the recorded interviews, and (c) a review of the literature related to collective cognition and structuration.

Leadership group meeting observations provided an opportunity to delineate the mutual shaping of structure and process in the context of learning and knowledge creation within the leadership groups. Two meetings from the Urban Hospital group and one lengthy meeting from the Community Hospital group were observed and recorded in their entirety. The meetings were transcribed, the recordings were played, and the transcripts and recordings were reviewed several times. Concepts from the tradition of conversation analysis provided the framework for analysis of leadership group meeting interaction.

Case 1: Urban Hospital

Setting and Roles

Urban Hospital is a 50-year-old private and not-for-profit 900-bed acute care teaching hospital located in the center of a large metropolitan area. As part of a regional healthcare system, the hospital employs over 6,000 staff and approximately 1,600

physicians, providing medical services to a local, regional, national, and international patient population.

In addition to the safe delivery of medical services to its patient community, the top leadership group is also responsible for the business growth and development of the organization. The top leadership group consisted of the chief executive officer (CEO) and six senior vice presidents who reported directly to him. A seventh vice president of the hospital foundation reported to the CEO as well as the chairman of the foundation board. Since her participation in senior leadership meetings was minimal, she was not included in this study. Figure 4-1 depicts Urban Hospital's senior leadership group.

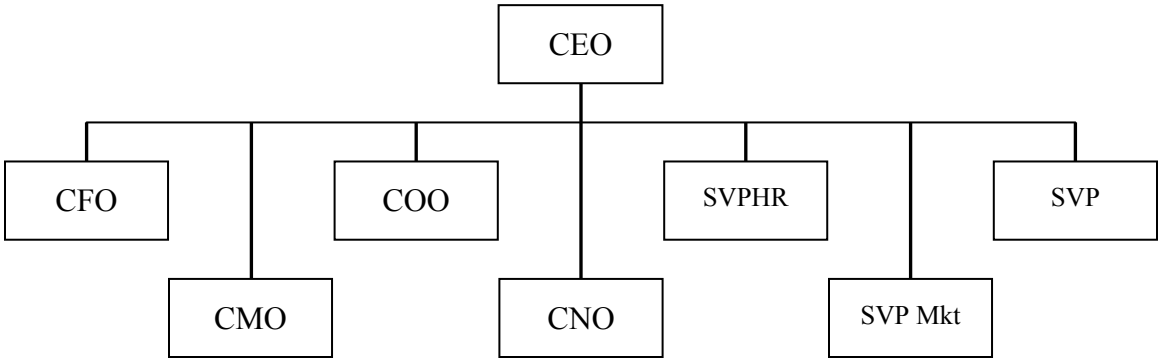

Figure 4-1. Urban Hospital senior leadership organizational chart. CEO indicates chief executive officer; CFO, chief financial officer; COO, chief operating officer; SVPHR, senior vice president, human resources; SVP, senior vice president, foundation; CMO, chief medical officer; CNO, chief nursing officer; and SVP Mkt, senior vice president, marketing.

The group had been together about 6 months prior to my observations and interviews. Table 4-2 highlights the demographics for this group with respect to tenure on the leadership team.

Table 4-2
Tenure Demographics of Urban Hospital Leadership Group

Leadership group member	Membership in the group
Chief executive officer (Jack)	5 years
Chief financial officer (John)	1 year
Chief medical officer (Betty)	4 years
Chief operating officer (Robert)	1 year
Chief nursing officer (Margaret)	6 months
Senior vice president, marketing (Michelle)	13 years
Senior vice president, human resources (Joanna)	7 years
Senior vice president, foundation (Gladys)	3 years

Members of the senior executive team had served with the group from 6 months to 13 years, with the majority of the group having formed within the past 5 years.

The leader of the senior executive team was the president and CEO. Jack, a white man in his 50s, occupied this role since 2003. He held bachelor's and master's degrees in business and public health administration and had worked in executive leadership for the past 20 years. He came across as committed and dedicated to the mission of his hospital. He chaired the executive team meetings that I attended and had a formalized style of meeting management.

The meetings were structured by an agenda. Jack introduced each agenda item and called on the subject expert at the table to present content for that item. Few group members raised questions. Members spoke, for the most part, one at a time. Interaction often occurred in dyads between either the CEO and a group member or between the presenter of content and a group member. At the meetings I attended, Jack focused on the fiscal health of the organization, the management of space, as well as the effective management of physician demands. He regularly captured opportunities during meetings to explain history or strategy to his team. During an interview, he described his understanding that he provided three functions for the team: (a) to engage each member

in a relationship of trust, (b) to emphasize the importance of teamwork, and (c) to create an environment where it was safe to talk about obstacles.

> I think my first role is to have the quality of relationship with each of my team members that gives them comfort and is reassuring so that they feel security in the role that they play. And then the next cut is to emphasize in my one-on-one meetings that teamwork is so important. And then I think my next responsibility is to create an environment where we can talk about this as a team and can talk about, Is there anything getting in the way of this? and Is there anything we need to work on?

The chief financial officer, John, a white man in his 50s, was a certified public accountant with bachelor's and master's degrees in business and 20 years of experience in healthcare finance. During interviews with the individual leaders, John was recognized as a results-focused high achiever, highly respected for his knowledge and experience. In addition, he did not fit the stereotype of a finance administrator whose only focus was the bottom line. He was aware of the tensions of working in an environment where the cost of equipment and services frequently outpaced revenues. In a conversation I observed between John and Jack, John recommended a transplant surgery for a young man who had no insurance. It was clear that the hospital was not going to be reimbursed. In explaining his decision to Jack, he stated that some things "you just do because it's the right thing to do."

John appeared to function as both a consultant to the team and as a liaison between his hospital and the corporate leadership of the healthcare system to which this hospital belonged. He stated in the interview that he had been sent to Urban Hospital to "straighten that place out." In the process of helping the hospital regain its financial footing, he saw himself almost as an arbitrator between the two entities.

> Well, unfortunately, [Urban Hospital] has always been the 800-pound gorilla . . . in the system. . . . The feeling on the corporate side [has] always been [that it] feels like they don't have to play by the same rules as everyone else. We're [Urban Hospital], we can do whatever we want. And from [Urban Hospital's] side it always appeared that corporate was stumbling in their way. So it took me a while to basically educate everybody down here [that] . . . some of the things they do at corporate really do make sense. It took me a while to get corporate to back off and say, hey, [Urban Hospital's] not the place it used to be. So some of that still goes on. . . . It took me about a year, I would say, to get them to cooperate, and that was one of my biggest personal goals that I wanted to fulfill.

The chief medical officer was Betty, a white woman in her early 50s who had a bachelor's degree in biomedical engineering, a medical degree, and 20 years of experience in healthcare administration. She joined the executive team at Urban Hospital in 2003. She took great pride in her leadership skills and remarked that she had assumed leadership roles since she was in high school. As the chief medical officer, Betty was responsible for providing overall clinical leadership and oversight of the medical practice at Urban Hospital. Additionally, her areas of responsibility included medical education and research.

Based on both the interview and the meetings I observed, Betty appeared to fill the role of consultant to the CEO. She sat next to him at each meeting I observed. Even when she wasn't present at the beginning of the meeting, a seat was left empty next to Jack, and when she arrived, she took that seat. During meetings she frequently engaged in dyadic conversation with him. In the interview, she described having conversations with him about the group dynamic.

> I've actually had some serious conversations with Jack about the group . . . and about his interaction with the group. I've been very forthright with him about the fact that [as] a group that's now been together about 6 months, we should be gelling more than we can and we have to deal with the conflicts.

The chief operating officer, Robert, was in his late 40s and was the only African American member of this predominantly Caucasian team. He had been in healthcare management for 20 years. Holding bachelor's and master's degrees in healthcare administration, Robert had been a member of this leadership team for slightly more than a year at the time of this study. Similarly to chief operating officers in many large hospitals, he described that at Urban Hospital his role evolved from spending the majority of his time focused on oversight of operations to a primary focus on core business development. He expressed the belief that success in a leadership group is based on the relationships that are built with colleagues and staff. "Leadership is based on the ability to communicate . . . and interact and relationships. So I sort of build from that." At the time of the study, John expressed that he felt constrained in his ability to influence direction and strategy for Urban Hospital.

> There are many members of the team that don't have a lot of ownership in that strategy. They feel that there is not a lot of freedom to participate in the development and the discussion and creating the architect of that strategy.

The chief nursing officer (CNO), Margaret, was a white woman in her 50s with a bachelor's degree in healthcare administration and a master's degree in nursing administration. She brought a 30-year nursing career, including 15 years of executive leadership experience, to her role at Urban Hospital. She was the newest member of this team, having arrived 4 months prior to this interview. Margaret's involvement with nursing extended widely beyond the day-to-day running of a hospital. She had held numerous leadership positions in national and regional healthcare organizations and professional associations, had trained nationally on a variety of nursing leadership issues, was widely published, and had won numerous awards for her contributions to the

profession of nursing. Despite her achievements, she described her ambition as being "very much interested in learning to grow as a nursing leader."

Margaret was ultimately responsible for the delivery of quality patient care at Urban Hospital. This included oversight of nursing operations, development of strategy, and benchmarking of hospital performance. At Urban Hospital, she conveyed that she had difficulty finding her ideas and her leadership style accepted at the leadership table. She described that her arrival was "like getting dropped into a vat of burning oil," as she was thrust into the middle of negotiations between management and the nursing unions. She explained that she introduced a number of ideas to senior management for consideration.

> I keep thinking I'll be able to hit upon one of those ideas that won't be too threatening to do for people. I might be able to get consensus from one or two members from the team. But when it comes to the group, I never know what I am going to get, whether I am going to get support.

Joanna was the senior vice president of human resources. She was a white woman in her 50s with a bachelor's degree in business and a master's degree in educational psychology, and she had worked in healthcare human resources for 15 years. She had been a member of this senior executive team since 2003. Her responsibility included oversight for all human resources functions, training, and organizational development.

With respect to the senior leadership group, Joanna was an observer of the process. She explained, "I just read people. I guess it's my line of business, and I can see how people are still very uncomfortable." Joanna appeared to function as a confidant to whom other members of the team vented their feelings. She shared that she used her position to guide Jack with respect to the group's dynamic. She explained that she thought about interactions among members of the team or between team members and

Jack and then provided Jack with feedback either about his interactions during executive meetings or about managing the interaction of other members of the team. For example, team members had complained to her about the behavior of another team member during executive meetings. She reported that she "initially had a discussion with [Jack] about 'Please have this conversation because it's not serving this person well,' and he agreed and said he knew that and that he would handle it." She expressed some frustration that these efforts did not appear to be successful.

The senior vice president of marketing was Michelle, a white woman in her 40s with a bachelor's degree in communications and a master's degree in strategic marketing and business planning. She specialized in forecasting future trends in healthcare and then helping to translate that information into meaningful knowledge that the organization could use in strategic planning, marketing, and program development. The longest-standing member of the executive team (13 years), Michelle had a long history in executive leadership. She was in the unique position of also being a member of the leadership team for the healthcare system to which Urban Hospital belonged.

Michelle appeared to operate at more of a distance from the executive team than her peers. Her physical office space was located in a different building, and she reported that her informal interaction with team members was minimal. "I don't think [of] dropping in and saying hi. But I think particularly . . . where they are in close geographic proximity, . . . I think there is more of that over there." Michelle seemed very focused on her area of responsibility and engaged with the team to the extent that their work or their areas of responsibility related to her function. Unlike other team members who spoke

personally about their peers, she spoke of her peers only in describing interactions related to their collaborative work efforts.

From Michelle's perspective, the role of the leader was dominant in shaping a team. She viewed it as the responsibility of the executive team to "figure out" Jack and noted that while she had been successful at it, others had not.

> I mean ultimately you are always going to have to work around the leader, you're going to have to respond to their style. . . . I figured it out right away. And I mean I just, I just could figure him out. It took me a little time, maybe a year, maybe 18 months total, but I mean almost right from the start I kind of figured him out. . . . There have just been, you know, a fair number of people that can't figure Jack out.

Analysis of the Interviews

The following presentation is organized to reflect the group members' collective description of their group process related to learning and knowledge creation. The analysis of the interviews was ultimately structured using Giddens' orientation to the three structurating modalities: signification, legitimation, and domination (Giddens, 1984). The components of this description are identified as contextual dimensions. Placing each dimension under a "modality" heading exaggerates the relationship between context and function and is used only for the purpose of enabling a closer analysis of the dynamic interactive processes of the group. Giddens indicated that all interactions occur within the three structurating modalities (Cassell, 1993). The contextual dimensions described within the signification modality reflect the collective interpretive schemes described in the interviews. The dimensions described within the legitimation modality reflect the code of conduct described by group members. The dimensions described within the domination modality reflect the power relations within the group. The

descriptions are supported by excerpts from interview transcripts. Unless otherwise indicated, the dimensions identified are those of the group and Jack collectively.

The following analysis responds directly to Research Subquestion 4: How do members of the leadership group experience the learning and knowledge creation processes of their group? Urban Hospital leadership group members described a senior executive team comprising talented and experienced leaders. For the most part, they perceived that collective learning and knowledge creation was not part of their interactive process, but rather was an individual enterprise. Their interview responses indicated that they valued the idea of sharing knowledge and experience and building learning opportunities in the collective. However, from their perspective, the collective was constrained by (a) the leader's control of the meeting agenda and interactive practice, (b) members' lack of trust in the leader and in each other, and (c) the inability of the group to resolve interpersonal conflict.

Below are eight characteristics of the group process that emerged from the members' description of their group. Each of these dimensions of the group context is described as it relates to the question of dynamic interactive processes that enact learning and knowledge creation within the group.

Communicative Structuring (Signification)

1. Knowledge resided within individual members of the team; collective learning was valued but not enacted. The members of the leadership group at Urban Hospital considered themselves and each other as talented, knowledgeable, and experienced individuals who were limited in their ability to navigate group process in a functional way. When Betty described her peers, she said, "Well, I think each of the

members of the executive team, most of them, are extremely proficient in their respective fields."

Leadership group members shared the perception that knowledge creation happens individually and within silos, not collectively within the senior leadership group. In response to an interview question about how knowledge is generated within the group, Michelle responded, "I'm not sure it does. . . . I think they're learning more individually than they probably are collectively."

When the group did interact around a solution to a problem or was engaged in joint decision-making, the interactive process was considered an aberration—so much so that Michelle referred to an example of the group engaged together around a specific issue as a "paradigm shift."

> In terms of this team, I would say there are not that many examples where we all have actively participated concurrently in a solution. Now, there are pockets of opportunities. . . . Margaret presented this morning on her new model for nursing, which was, you know, very visionary and very ambitious, . . . but paradigm shifts like that don't come down the pipeline that often when we're all involved.

Comments from members of the leadership group reflected the linear flow of information as well as the difficulty the group had in navigating the tension between individuality and collectivity in the process of information exchange. John's frustration was evident in his description of his own effort to pull a subgroup of the executive team together to share information about their respective projects.

> It got to the point where we weren't communicating enough about what everybody was doing, so in addition to these meetings, I have a meeting every week, or every other week, I forget what it is, without [Jack] . . . me, Robert, Betty, and Margaret. We meet in my office, just to try to communicate better. . . . The first meeting, Betty took over, like, "This is my meeting." And recently I said we got to get this meeting out of my office, because this is not my meeting. This is our meeting. And Margaret had said after the first meeting with Betty that if all

> the meetings are going to be like that, "I'm not coming, because that was not the intention that you had originally established for the meeting." I said, "It's not" cause Betty was sitting there saying, "Okay, Robert, what are you doing? What are you doing?" as opposed to telling us what she was doing. So yeah, it's just the major things that we're working on. Like I'll sit down and say I'm working on physician billing consolidation. This is where we're at in the process. Robert will say, "I'm working on facilities redesign, and this is where we're at in the process." And I want to know from Betty . . . what physicians are you trying to employ? So I know what service lines she's trying. . . . She hasn't gotten to the point where she's sharing that. She'll just give you other stuff that's not as important.

Jack expressed more confidence in the ability of his team to generate knowledge together. He described an example in which a subset of the leadership group developed an innovative model to manage the physician contracting process.

> The key people were John, Robert, Betty, and I, and we are four very different individuals in terms of strengths and orientations. . . . We went through the first iteration which, that didn't take us anywhere, and we regrouped and rehuddled. It was probably a series of six or seven meetings of the four of us and the combination of the pressure, knowing how important it was, and I think the differences as we went back and forth putting it together yielded that creative process.

Similarly to the group, Jack considered this example to be the exception and noted that more frequently the process was bogged down as members argued for individual positions and interests.

2. Communicative interactions were perceived as linear and frequently dyadic, favoring Jack and the chief medical officer. According to members of the leadership group, communication among members was challenging. Within the group process, communicative actions and structures were enacted that reflected this perception of the group. For example, team members perceived that Jack's comfort zone dictated a formalized meeting structure that limited member exchange of ideas and minimized opportunities for new learning and knowledge creation. Members described a meeting

format in which information was reported with the expectation that it would be considered and reflected upon by individual members and that it would be transferred to where it was needed. Members perceived that requests for feedback during meetings were minimized, resulting in frustration, as expressed by John. "And [Jack] brings us an agenda to talk about. And do we ever get any input in the agenda? Well, usually not."

Further, members described a perception that, within the collective, Jack and Betty, the chief medical officer, engaged in dyadic conversation that excluded other group members. Robert recalled a particular time when he was part of a subgroup that included Jack, Betty, John, and himself.

> As we progressed and reached a certain point, there was sort of this deliberate move. . . . Even though John . . . is the person in charge of finance and I am in charge of operations, have sort of slowly been separated from that process. So what started as a very positive productive team initiative moving towards an endpoint has now managed to create even more of a wedge.

He described his perception that the relationship between Jack and Betty had produced disengagement in the group process. He referred specifically to dyadic conversations that took place during senior executive meetings between Jack and Betty.

> There are many members of the team that don't have a lot of ownership in that strategy. They feel that there is not a lot of freedom to participate in the development and the discussion and creating the architect of that strategy. And so when that strategy fails, it's not as impactful because many of the leaders don't feel that they have participated in it to start with. And you know, you've sat in many of our meetings or some of our meetings. And if you look around, 80 to 85% of the discussion will take place at one end of the table. [The reference is to Jack and Betty, the chief medical officer who sat next to Jack at one end of the table.]

Jack perceived the senior executive meetings as a place where conversation could be "free flowing." He recognized that the meetings didn't always meet that expectation, but indicated that he expected to set a tone where open interaction could happen.

3. The relationship of position and norms of deference in interaction constrained member interaction. Team members suggested that the norm was to adjust to Jack. Robert stated:

> Unfortunately, you have to learn to navigate. Because clearly, the leader of the organization sets the tone. I believe that. No matter how hard anybody else tries, the overriding tone is clearly set by the leader. . . . [Jack] is also the kind of individual that when he digs his heels in, they're planted. And that is just the way it is. So you learn to navigate around the things that you find yourself, time and time again, unsuccessful at changing.

Jack had the perception that power resided primarily within his role. "This has been a more paternalistic kind of organization in terms of top-down leadership." This perception that power rested with the role of the designated leader and was minimally distributed in the group supported the structuring of a traditional hierarchical process in which members regulated their interactions with the leader to conform with what they perceived to be the leader's expectations. Members of the leadership group described interactive patterning and structuring in which motivation to share ideas or opinions was diminished. John and Michelle both suggested that decision-making was more unilateral and resided with Jack. They expressed frustration with what they perceived to be his unwillingness to entertain input or feedback from the group. John stated:

> What's happening is that I'm getting the feeling that he's already made the decision that we're doing it. And now he's asking for input, and that doesn't go over well with anybody because we're like, why waste our time? You've already made that decision. Let's move onto the next issue.

Michelle added:

> He . . . is too reluctant to accept advice and act upon it. He will listen, he will track, but he won't act or he will fail to process it as a priority or he will . . . eventually come to the same conclusion, but we've lost too much time.

Jack acknowledged the difficulty group members might have communicating their disagreement with him and went further in acknowledging that entertaining opposing points of view was a personal challenge. “The area of greatest challenge for me is welcoming ideas in opposition to mine.” Joanna, the senior vice president of human resources, suggested that the group’s perception that they needed to be deferential to Jack had to do with the relative short tenure of many team members. She stated:

> I think the reason it [the team] is struggling is because the president [CEO] is very—he has very strong ideas and opinions about a number of issues. If things are raised during a particular leadership meeting that he may or may not agree with, he will let his opinion be known. And I think because the team is relatively new, I think there is less ability of the members to maybe stand up and say, “actually, no.”

Group members also reported their perception that Betty, the chief medical officer, occupied a place of favor with Jack. Within the culture of a hospital, the highest-ranking physician, the chief medical officer, is viewed as someone who possesses specialized knowledge, status, and resources. According to this leadership group, the power distribution within the group was balanced toward the chief medical officer, and the resulting power struggle occurred between John and Betty. John expressed his frustration with what he perceived to be Betty’s violation of role boundaries.

> Pardon my French, there’s no way in hell the chief medical officer ought to have operational responsibility . . . and she does. She has OB [obstetrics], . . . she has surgery, . . . she has a bunch of stuff that should all be the chief operating officer’s.

4. Although conscious interrelating was valued as a function of effective working relationships within the group, the CEO role impeded such mindful interrelating. Urban Hospital group members indicated that they reflected on the interactive process within the group. They described, sometimes in detail, the interactions

of their peers or of Jack with members of the group. They included descriptions of their own interactive efforts to achieve an effective working relationship with another member of the group, and they expressed concern and frustration when their efforts did not produce the desired results. As Michelle reported:

> There are some of us in terms of the group dynamics who are accepting of his strengths and weaknesses and know how to work around his weaknesses. And there are others who don't do it as well. . . . Just the inability of some executives to really connect with [Jack] or to understand, . . . the key to a successful executive relationship and team is your ability to work within your boss's personality characteristics and their priorities.

Jack's description of his reflections on his leadership group indicated that in order to effectively manage this team, it was necessary for him to remain consciously aware of the interactive dynamics that occurred among his group members.

> It is a conscious effort to operate with a sense of where each individual needs encouragement. For Betty, she needs to be encouraged when she accepts the ideas of others. Um, with Robert, I think it is more just expressing ideas or giving us the benefit of his experience and what he knows. So, it is almost that classic, you know, polar ends of the spectrum.

Jack suggested that for him to succeed as a leader, he had to be conscious of the interactive process between himself and his group and between and among them with each other. To a question about what he was learning from the group, Jack responded:

> I would say that the consciousness of a good leader, to really optimize the talent of a team, the degree of consciousness you have to have with regard to how you impact as a leader. And how your interaction occurs, both with one-on-one relationships and with the team process.

The efforts of this team to address their interactional challenges was apparent in the description of a group retreat where members provided feedback to Jack about what they perceived as his intrusion in their interactions with each other. Joanna indicated that

group members had made requests to Jack directly to discontinue this type of interaction. She recounted a specific effort at a leadership group retreat.

> I told him in front of the entire group that we would not have, we would not really get to trust one another at a level where a high-functioning team would be if he insinuated himself in conversations between team members and tried to solve issues and not let them do so. He completely disagreed with me and said that was his job and that was his place.

Jack's explanation of his view indicated that he had consciously considered his actions as he had intervened in conflicts between team members. He was intentional and perceived this process to be a necessary part of team formation.

> The dilemma that I find in those conversations—I feel I need to do two things, but they can be in contradistinction. Because . . . if I tell people "No, you're crazy. Why do you think so and so is like that?" that will be upsetting. And the reality is that most of the time there is clearly validity in the points that they make. But what I try to do is validate what they say and then come back to intention and motivation and the fact that there is honorable goals, intentions, motivations in this behavior, although I can understand how it might come across in the way it comes across. . . . On occasion I'll say if it is coming across that way, I will talk to whoever it might be and try to coach them that their true intentions are not coming across in the way this is being expressed or handled. But it's . . . extremely delicate. I cannot tell you at the end of any one of those conversations that I say to myself, "Wow, did I nail that," or I handled it exactly as I wanted it to come out to position for higher trust. I can say that I have a high consciousness with regard to the fact that where that comes up, I am in now a time zone of potentially doing something that could detract from trust and teamwork, while at the same time feeling that I want to be connected to the individual and not invalidate their perceptions because then they'll feel that they can't come to me if they are struggling with a relationship or an issue. My overarching aim is to, through the team process and team communication, really set a very strong expectation on teamwork.

In summary, the structuring of communication within the Urban Hospital leadership group reflected a set of interpretive schemes in which learning and knowledge creation were viewed as individual enterprises, communication was rarely collective, and

power resided within the CEO, who determined the interactional tone and level of functionality of the group.

Normative Structuring (Legitimation)

5. Group members developed value judgments about each other that shaped subsequent interrelating. When group members talked about other members, value judgments were frequently invoked. Members then invoked the value judgment as the rationale for their interaction with other members. For example, Michelle described her impatience with Jack:

> Jack doesn't learn very readily. He . . . is too reluctant to accept advice and act upon it. He will listen, he will track, but he won't act or he will fail to process it as a priority or he will . . . eventually come to the same conclusion but we've lost too much time. So there is an element of stubbornness to [Jack] that is not conducive to learning readily.

Robert emphasized the implications of value judgments ascribed by group members. In recalling a situation in which he felt he had been misunderstood by Betty, Robert described his interpretation of her response. "She took that as a personal affront to her and a lack of support on my part. It completely changed the dynamics of that particular meeting; it changed the dynamics of our interactions from that point on."

Jack suggested that group members were critical of each other, and he viewed that as having a negative impact on the functioning of the group.

> I'm finding each of my direct reports is, has, one critical comment to say about the rest of the team. Betty is my chief medical officer and she is a very strong and visible personality and she has not had, I think, the history of the financial constraints that we are undergoing, so there is a sort of bristling that goes on there. And then John, as he describes the things he needs to do with his accountability, . . . she reacts I think negatively and strongly that this isn't her area, or this is her area and she should have the prerogative to be above it.

His own focus was directed to the challenge he faced in managing the team.

> To successfully lead this team is going to take more work than some other more typical teams because of how advanced each of the individuals are in the particular category or mode in which they operate.

6. The management of conflict within dyadic and triadic substructures of the group impeded the sharing of information. Several members of the group pointed out that the senior executive team was made up of a group of highly competent and diverse individuals. Members acknowledged that they were on a learning curve with respect to each other and that, as a result, within the group conflict was either avoided (people did not speak up) or was managed by constructing communication triangles. For example, Joanna reported:

> Some people are not at all uncomfortable and will say whatever comes to mind. But there are others in the room, you can just see, they will not speak up. And, in fact it is interesting: there is one team member who was very willing to speak up initially, but I've noticed that has lessened over the last 2 or 3 months.

Most members of the group at one time or another managed conflict by invoking a communication triangle, avoiding the complexity of interpersonal conflict with each other by engaging a third member, either Jack or another member of the team. These one-on-one conversations between the individual group members and Jack were often interpreted by group members to be an individual member's effort to protect his or her self-interest and were considered an obstacle to effective interactive process. The episode recounted below, by almost every member of the leadership group, was considered an example of Jack's inappropriate intrusion into the interactions between two members.

Robert described the situation that occurred following a suggestion that had been made during a senior executive meeting by Margaret. Robert had strong feelings against proceeding with her idea. He described his perception of the outcome of this conflict.

> A good example would be the situation I pointed out with Margaret and the whole rap/singing situation. It was pretty obvious that it created an issue for her. Rather than allowing myself and Margaret to get together and resolve and come to some common ground of understanding, [Jack] sort of inserted himself into that process and went to her, and then came to me and told me I needed to go apologize to her for something, for expressing and standing my ground. And as a result I flat out refused. I could not or would not apologize for voicing a very well thought out position. It just happened to be counter to what she wanted to do. There was no need for an apology. There was room and need for a discussion, but an apology? Absolutely not. And so as a result of him inserting himself in that project, it was never resolved.

Another approach to the management of conflict was silence. As Joanna recounted:

> But the big elephant in the room, the biggest elephant in the room, that may prohibit some of the learning is that there is a team member who really sucks all of the air out of the group. There is one team member who interrupts, who is the center of everything, who takes up way too much time, and every other team member is very upset by it. And I think that really inhibits some of the—you call it learning, I call it communication, same thing. I think that inhibits it and makes people resentful that [Jack] doesn't manage that better.

Other members agreed that while they had ideas about issues that needed to be addressed, they did not feel comfortable voicing these issues within the group. For some members, this silence constrained the performance potential of the group. They perceived that creativity and problem solving were limited by the group's inability to manage conflict constructively. Betty expressed a desire to see the group engage in a lively exchange of ideas. However, "any disagreement right now is seen as a negative conflict rather than a difference of opinion." She then expressed her perspective that Jack, by resisting conflict, further constrained the group in this regard. "I think that [Jack] doesn't do well with a difference of opinion. He sees it more as the group not getting along, where I actually think there's better problem solving out of allowing conflict."

7. Trust was appropriated to selected group members, and the level of trust in the group was low. Leadership group members each recounted a personal valuing of

trust and a judgment that trust was at times a violated norm within the leadership collective. Leadership group members understood trust to be fundamental to the effective functioning of the group and believed that the "distrust" dynamic, as it was enacted in the leadership collective, impeded the work of the group.

> John: I think if we all trusted each other to do the right thing, then life would be much simpler. . . . Because of our lack of trust, it's causing us to spend more time covering our butts than necessary. So weird: . . . they'd answer your question one way and then things don't go right and they say . . . "Well, I never said that."
>
> Margaret: As I'm learning the parameters and the behaviors and the long-term personalities of each person on the team, I am beginning to learn to navigate who I can trust and can't trust. But to say that [trust] is the basis of the group would be dishonest. I think there are some major issues here.
>
> Joanna: There is a lack of trust among and between the team members at varying levels. And in fact one of the newest team members called and said to me, "I don't trust another member of the team except you. Not one other person." And I said, "Why?" . . . "Just something about this team."
>
> Robert: You want to be able to predict . . . how your counterpart is going to react to a given situation. If they are going to support you or if they are going to step back and hang you out to dry. Are they going to be there when you need them? We actually managed well because of that trust issue [referring to his experience at another hospital], and we don't have that luxury here.
>
> Betty: We tend to communicate by email and short messages and whatever. . . . When you don't have a level of trust, . . . a whole lot of complicated situations arise out of shorthand communications that were meant to be positive and nonconfrontational. It bogs things down.

Jack validated that trust was a norm in the group and that the level of trust was low.

> I think this [trust] is our major challenge as a team, without question. I think there are other dysfunctions. They are all extremely capable people, but they come from such different perspectives and . . . both the political and the financial pressure brings out a certain survival instinct in people and . . . it becomes hard to trust.

Additionally, he suggested that it was his responsibility to strengthen the level of trust within the group and therefore to improve the group's functioning around this norm.

> I would say that this is the single biggest limiting factor for our team. If I could really get everyone to say, "Look, there's no gotchas. No one is trying to make anyone look bad. To a person, there is a lot of talent and leadership around this table. So now, let's just put that fear aside and work together because we'll be very successful and turn this around." So it does figure extremely prominently, and I am always asking myself what can I do.

In summary, Urban Hospital group members perceived that a set of specific norms shaped the interrelating within the group. These included the forming of value judgments about each other, a general avoidance of conflict with each other or engagement with a third party for support, and a generally low level of trust within the group.

Power Structuring (Domination)

8. The CEO was primary in establishing the context for interactive practice. Members indicated that the responsibility for the interactive process within the leadership team rested primarily with Jack. Michelle said:

> I think the role of the leader in the shaping of the team is something . . . to take a hard look at. . . . Ultimately, you are always going to have to work around the leader. You're going to have to respond to their style.

Most team members were highly critical of Jack's performance with respect to group process. Some members expressed that they felt strongly that Jack's style was so negatively impacting the group that they had tried, albeit unsuccessfully, to persuade him to change his interactions with the group by speaking to him privately about their concerns and frustration. John felt strongly that Jack valued collaborative process but lacked the ability to facilitate it within this leadership group:

> He says it's a collaborative process . . . but he would like you to think that it's a collaborative process. I just don't know that he has the skills to get there. He actually has to listen, and I'm not sure he does that.

Jack likewise explained that in his role as leader of the team, he was primary in establishing the context for interaction among team members. He described that he was directive and intentional in efforts to create an interactive process that he believed would support effective teamwork.

> I think my first role is to have the quality of relationship with each of my team members that gives them comfort and is reassuring so that they feel security in the role that they play. And again that is a challenge because you still have to give them feedback on things you want them to do differently. But I think that is my first responsibility. If you have people walking into a meeting room feeling like "Gee, I'm not even sure how I evaluate them or if they have a secure position in this organization," they're going to be walking on eggshells or reactive. So that is the first cut. And then the next cut is to emphasize in my one-on-one meetings that teamwork is so important. . . . This is going to be critical to our success as a group to get through this challenging time. And then I think my next responsibility is to create an environment where we can talk about this as a team and can talk about, Is there anything getting in the way of this? and Is there anything we need to work on?

Betty also spoke at length about her perception that the group's interactive process was being significantly constrained by Jack's expectations and his interactive style.

> I have also commented that at times he doesn't realize he stops conversation when, in the sense that a conversation starts and there might be some conflict. He jumps in right away to arbitrate. . . . Or, he jumps in because it's not quite the direction he wants it to go.

She concluded her observation by recognizing that her ability to share her perceptions with Jack was only because he had created an environment in which it was safe to do so.

> As an individual I've been very directive . . . in my comments to him. I believe I'm doing it because I like him. I think he's a nice guy. I think he's a good boss. I want us to be successful. I also feel that he has made me feel very comfortable in my role and in our partnership such that I feel comfortable. So he gets positive score, so to speak, for making me as one of his senior people feel so comfortable

that I can come to him privately and say, "Look, this is going on." So, he deserves credit for establishing relationships among the senior group in that way.

Finally, the Urban Hospital leadership group perceived that power was concentrated in the CEO, and as such, the group was constrained in its ability to function collectively.

Summary of Urban Hospital Interview Findings

Table 4-3 presents a description of the eight dimensions that reflect the Urban Hospital leadership group's understanding of themselves and of the interactive dynamics enacted within the group. These dynamics represent the group's perception of their social interaction context. That context points toward the structures and actions related to learning and knowledge creation within the group.

Table 4-3
Urban Hospital Dimensions of Context

Structurating modality	Interview data	Dimensions of context expressed by the group and/ or Jack
Signification/ communicative structuring	• Betty: So I see the group as typically not working well together and being cautious in their interactions with each other. • Robert: We have a collection of very accomplished, seasoned individuals that function very productively with a high degree of dysfunction. We work in little capsules. There is not always the degree of communication that is needed. • Michelle: So I think they're learning more individually than they probably are collectively. • Jack: My overarching aim is to, through the team process and team communication, really set a very strong expectation on teamwork. I think if they can . . . see that it's not just about their individual achievement, but it's a team achievement, that would be the greatest outcome for me for this year.	Knowledge resided within individual members of the team; collective learning was valued but not enacted.
	• Michelle: Well, it is very much [Jack's] meeting, the way he likes to conduct it. He does like to have a lot of discipline and order. He historically would rather it be didactic than, you know, a discussion forum. . . . He hasn't been really, overwhelmingly open to around-the-table discussion of what's going on.	*From the group's perspective:* Communicative interactions tended to be linear and frequently dyadic, favoring Jack and the chief medical officer.

Structurating modality	Interview data	Dimensions of context expressed by the group and/ or Jack
Signification/ communicative structuring *(continued)*	• Jack: I think it was pretty comfortable today. What I said was that under the pressure we are under, there is always a potential vulnerability in teamwork. And the two things I ask everyone to pay particular attention to is, one, communication. Because there'll be a free flow of ideas.	*From the perspective of Jack:* Meetings were opportunities for open communication.
	• Margaret: A couple of decisions . . . would have benefited . . . from interchanges in terms of challenging our frames of thinking. . . . The thinking is framed by the leader. Once it is force-fully put that this is the thinking, everybody just backs off. • Jack: This has been a more paternalistic kind of organization in terms of top-down leadership. . . . In the future there is going to have to be much more that comes from the grassroots.	The relationship of position and norms of deference in interaction constrained member interaction.
	• Joanna: The group is . . . completely struggling, but my biggest concern is [Jack's] lack of awareness of or unwilling-ness to be aware of the struggle. It worries me terribly. • Betty: And we have tried to deal collectively as well as individually with things that limit our ability to collaborate. • Jack: I said it's best, the more proactive we are in communication with one another, the better it is going to be. And the other is avoiding territoriality. The idea that if this is my rice bowl, you can't have your finger in my rice bowl. Because we're in a dynamic mode now and we all have to be comfortable.	Although conscious interrelating was valued as a function of effective working relationships within the group, the CEO role impeded such mindful interrelating.
Legitimation/ normative structuring	• John: I think Margaret shuts up, even when she doesn't agree with Jack. . . . Robert, I think, is quiet most of the time. Betty, she talks a lot, but even when she disagrees with Jack she'll tell him. She gets mad if Jack disagrees with her. . . . She hates when I disagree with her. • Jack: Because what's happening is, not openly but privately, I'm finding each of my direct reports . . . has more critical comments to say about the rest of the team.	Group members developed value judgments about each other that shaped subsequent interrelating.
	• Robert: If you look around the table, you have some extremely bright, accomplished, capable individuals who are absolutely paralyzed and feel that they don't have the freedom to express, to contribute, to articulate, some of their thoughts if they are in agreement or particularly if they are in disagreement at one end of the table. • Jack: There is definitely conflict. . . . What I would like to see is a situation where . . . not feeling like if I disagree I must also be prepared to launch into a defense of my position.	The management of conflict within dyadic and triadic substructures of the group impeded the sharing of information.
	• Joanna: There is a lack of trust among and between the team members at varying levels. • John: I think if we all trusted each other to do the right thing, then life would be much simpler. . . . I think because of our lack of trust, it's causing us to spend more time covering our butts than necessary. • Jack: They are all extremely capable people, but they come from such different perspectives, and . . . both the political and the financial pressure bring out a certain survival instinct in people and it's, it becomes hard to trust.	Trust was appropriated to selected group members, and the level of trust in the group was low.

Structurating modality	Interview data	Dimensions of context expressed by the group and/ or Jack
Domination/ power structuring	• Margaret: You know it's a very leader-centric meeting. . . . It's driven by the leader. . . . I believe the administrative intern and Jack decide what we are going to talk about. And there is very little other opportunity to talk about other things in that process. And there isn't a lot of informal opportunities for the group to get together. • Jack: I think my first role is to have the quality of relationship with each of my team members that gives them comfort and is reassuring so that they feel security in the role they play. . . . And then the next cut is to emphasize in my one-on-one meetings that teamwork is so important. . . . And then I think my next responsibility is to create an environment where we can talk about this as a team.	The role of the CEO was primary in establishing the context for interactive practice.

Senior Executive Meetings: Introduction

Observation of leadership group meetings provided an opportunity to examine aspects of the perceptual context described by group members. When group members interacted, they were continuously exchanging information that enlarged explicit and tacit understandings of both the stated agenda and the group interactive process. The perceptual context provided by the leadership group member descriptions was enacted in the multiple formal and informal interactions occurring between and among group members in the day-to-day process of organizing. Hence, the observations of senior executive meetings provided an opportunity to examine the actions of talk as they generated the mutual shaping of structure and action. The leadership meeting became a complex medium where the organizational agenda met dynamic interactive process.

The senior executive meetings at Urban Hospital were held every 2 weeks at a regularly appointed time in a formal conference room located at the back of the executive suite. The meetings took place around a large rectangular conference table taking up most of the floor space.

Prior to the meetings, executive interns arrived and placed a packet of papers at each place at the table. Members of the leadership team entered the room, exchanged hellos, and engaged in what appeared to be friendly back-and-forth banter, perhaps following up on a piece of business in progress. Both the chair at the head of the table and the chair to its right were left empty. Jack arrived, right on time, seated himself at the head of the table, and briefly joined in the informal conversing at his end of the table before calling the meeting to order. At the meetings observed for this study, Betty arrived after the meetings had begun. She took the seat to the right of Jack.

Jack, with the support of an administrative intern, prepared the agenda. As John noted during his interview, "Jack brings us an agenda to talk about. And do we ever get any input into the agenda? Well, usually not." According to Robert, senior executive staff meetings were structured and formal, "the way he likes to conduct it. He does like to have a lot of discipline and order. . . . He historically would rather it be didactic than, you know, a discussion forum."

Analysis of Leadership Group Meeting Observations

Two senior leadership meetings were observed and recorded in their entirety. The first meeting observed was dedicated to solving a space distribution problem. The second meeting was a finance meeting in which members were provided with a revenue and expense report summarizing the previous fiscal year's financial performance. Both meetings contained several examples of talk between and among group members that enacted potential enhancements to technical processes expected to improve operational efficiencies.

The meetings were transcribed and the recordings were replayed and the transcripts reread several times with a focus on identifying both the structures and action occurring within the meetings. Using concepts from the tradition of conversation analysis (Boden, 1994; Pomerantz & Fehr, 1997; Ten Have, 1999), each turn of talk was characterized according to the actions being performed by the group member (Pomerantz & Fehr, 1997). Examples of actions included greeting, informing, reporting, explaining, interpreting, elaborating, questioning, inquiring, persuading, complaining, agreeing, disagreeing, telling a story, correcting, clarifying, and so forth. To heighten an understanding of the mutual shaping that takes place between structure and action, the transcripts and recordings were further analyzed in a process that moved back and forth between the actions being identified in the transcripts and the structurating properties defined by Giddens (1979, 1984).

The talk in interaction in these meetings tended to focus on improving efficiencies, refining old processes, or increasing production, all examples of exploitative learning (March, 1991, p. 71). There were exceptions, when group members either reported on or participated in searching for new ways to approach problems, or utilizing innovative ideas in the implementation of processes and procedures. Meeting talk contributed to the development of technical knowledge (how to improve processes and procedures) and communicative knowledge (how to communicate in the collective) (Habermas, 1971).

The findings from the leadership meetings are presented as conversation segments that illustrate the learning and knowledge creation processes taking place in turns of talk. Each segment is preceded by a brief introduction of the context and followed by a summary of the interactive process.

Segment 1

Within Meeting 1 there was a segment in which the process veered from the linear format of most leadership meetings, providing a glimpse into real-time group learning about process enacted in the talk among team members. The primary agenda item, space distribution, fell under Robert's area of responsibility. He was called on by Jack to introduce the discussion, which he did within an extended turn that was interrupted by Margaret's request for information. Robert's introduction lacked specific direction and thus challenged the group to structure the conversation within which to enact that thinking.

The norms for senior leadership meetings had shaped a structure in which turns of talk were mediated primarily by Jack, and members were expected to listen to reports and updates, providing input when directly requested to do so. Robert's introduction challenged the group to engage at a level that would require them to take more action. Betty made an initial effort to respond by talking through the space demands of various service lines that reported up to her. Other members of the group appeared to be engaged, listening and tracking, but not participating in the talk. The three segments contained in Tables 4-4, 4-5, and 4-6 (segments 1a, 1b, 1c) occurred in a conversation that lasted 5 minutes and 23 seconds and represented a look at the reciprocal shaping of talk and structure as the group enacted collective thinking about space distribution. In each of these segments, the duality of structure and action emerged as member actions shaped the structure of the collective conversation and the structure of the conversation shaped member actions. (Note: The conversation that occurred between the boxed segments below was not considered for this piece of analysis because it was lengthy and

extraneous.) Table 4-4, Segment 1a, reports how in an effort to clarify Robert's idea, Robert, Betty, and Jack talked through the facility planning process Robert was attempting to introduce to the group.

Table 4-4
Segment 1a (Urban Hospital)

Text	**Action performed**
Betty: But we are going to have to think of iterative steps to take in space, because we've got to free up a lot of space in this building just so we can grow programs.	Constructing the process
Robert: Betty, I think that's part of this rationale—is to perhaps identify what are some of the needs here in the hospital. Look at some of the services that we could, without a lot of issues . . .	Elaborating Betty's thinking
Betty: Without politics . . .	Clarifying
Robert: Without politics.	Confirming
. . .	. . .
Jack: So Robert, what was your intention here? To just have a general discussion . . . on needed space? Don't we have an ongoing inventory of needed space or do we need to organize that better?	Clarifying questions Constructing the process
Robert: We need to organize that better, Jack. We have not had . . . a very defined system.	Responding; reporting
. . .	. . .
Jack: So what we need to do then is bring, it seems to me, we need a group process with all, with the benefit of all that information	Constructing the collective process
Robert: Right, and I agree. But what I was trying to get at today is to understand some of the immediate needs and some of the prioritizing of these immediate needs because they are coming pretty fast and furious here.	Focusing the conversation

Table 4-5 explains Segment 1b. Here the interaction between Jack and Robert demonstrated how the group determined how to frame what appeared to be a complex problem.

Table 4-5
Segment 1b (Urban Hospital)

Text	**Action performed**
Jack: So what process would you propose to cast a wide net so that we would understand from the totality of the campus what the perceived needs are?	Questioning for focus
Robert: Well, that's where I want to start. What are the perceived needs because I don't know? . . .	Informing; self-disclosing
Jack: What I'm saying is are you proposing that we do a survey, or is there a process?	Repairing
Robert: The survey's been done, Jack.	Informing

In Table 4-6, Segment 1c, Jack suggested the group could not proceed without a comprehensive needs assessment. That was followed by an extended silence in which it appeared there was tension in the group. Betty recognized that Robert did not have such an assessment available. She disagreed with Jack by announcing an immediate need.

Table 4-6
Segment 1c (Urban Hospital)

Text	**Learning action**
Jack: But in order to prioritize the immediate needs, don't we need to look at the full list or . . . ?	Challenging the process
SILENCE (3 seconds)	Tension
Betty: Uh, I think we could probably do it [prioritize the needs]. I can tell you that I think the cardiology space, you know, from mine, the cardiology space needs to be defined . . .	Disagreeing; Contributing

Table 4-7, Segment 1d provides an illustration of the talk in interaction that generated collective processing of the space issue.

Table 4-7
Segment 1d (Urban Hospital)

Text	Learning action
Margaret: Well, I've got a couple. I'm going to need classroom space . . . faculty offices for the School of Nursing program. . . . That isn't immediate; it's by next fall.	Informing
Betty: Can I tag onto Margaret's skills lab? . . . The skills lab is phenomenal for so much training that we're going to need to be doing. . . .	Elaborating Margaret's turn
. . .	. . .
John: Robert, what about a source for wound care? Is there any room for a hyperbaric chamber if we were to have space big enough?	Questioning
Betty: Well, the question is . . . what do we want to do? As I understand it . . . we're going to put the 12 . . . I guess there's a 12 and a 16 hyperbaric . . .	Informing
Jack: . . . If we started that, if we started the service in a trailer and it took off, then I think that would be an actual evolution.	Predicting
. . .	. . .
Margaret: I don't think this is exclusive to nursing, but we really need a technology training classroom . . .	Informing
Betty: And you could attach it to the skills lab and just have one group oversee that.	Extending
John: Joanna, in HR, don't you guys have a computer training lab or something?	Extending question
Joanna: The East building has a room with, I believe, it's 8 to 10 computers that are set up. But I think you're talking about a bigger . . .	Informing; Checking

Table 4-8
Summary of Segment 1 (a, b, c, d—Urban Hospital)

Learning action	Description of learning/ knowledge creation	Structurating properties emphasized
Constructing the process Elaborating Clarifying Confirming Responding Reporting Focusing Questioning Informing Repairing Self-disclosing Informing Challenging Disagreeing Contributing Predicting Extending Checking	New information about space utilization Challenge to normative meeting process resulting in group members' construction of collective process through turns of talk	Communicative: Member turns of talk enacted a collective conversation about the space issue. Normative structuring: Group norms governing meeting talk were challenged by Robert's proposal about how to work on the space issue.

Note: A glossary of learning actions appears as Appendix A.

As summarized in Table 4-8, in Segment 1, the leadership group was challenged to explore collective problem solving around the facility space issue. Robert's directions ultimately engaged the group, despite Jack's protests that Robert had not brought the

group enough information and that his proposed course of action was not adequately defined. In Segment 1c, Jack suggested the group could make no immediate progress on this issue because the group didn't have all the information. Betty's example provided a space within which other members could think about their specific needs and locate the appropriate place to insert their ideas into the conversation. Soon more members of the group were participating, and a number of ideas about space distribution were voiced and elaborated upon. The group successfully engaged in a collective conversation in which solutions for problematic space issues began to clarify as more questions were posed.

Segment 2

As the meeting began, Jack asked Robert to begin the agenda by introducing the facilities issue. Table 4-9 provides the conversation sequence in which the primary agenda item, facility planning, was initiated by Robert, and very quickly Robert's introduction was interrupted by a need for information from Margaret, the newest member of the group.

Table 4-9
Segment 2 (Urban Hospital)

Text	**Action**
Robert: They are very much aware that Corporate Health Systems [parent company to Urban Hospital] is prepared to move off campus. In light of what's going on with SX1, that might provide us with a space opportunity as well.	Informing
Jack: Hmm	
Robert: So, is that okay with everybody?	Checking
Jack: Yes.	Confirming
Margaret: So what's going on with SX1?	Topic changing; querying
Jack: . . . Well, SX1, ah the latest is that we were supposed to get this grant for $25 million and when we got the grant application one of the headers of the grant application was this is not a construction program and the requirement for construction will be considered a nonresponse to the application, to the call for the application. So that has now stopped everything in its tracks with regard to SX1. So in my view, I interpret this as we're not going to pursue SX1 any further. . . . That said, we'll still have a very active program . . . and there's still grants.	Informing Interpreting

Table 4-10
Summary of Segment 2

Action	Description of learning/ knowledge creation	Structurating properties emphasized
Informing Checking Confirming Topic changing Querying Interpreting	Information provided about SX1	Communicative: Question and response

The segment contained the following micro-level actions: informing, checking, confirming, topic changing, querying, and interpreting (Table 4-10). This segment demonstrates how the talk-in-action enacted the accumulation of technical knowledge, in this case, new information. These actions being generated in the meeting talk reflect the rhythm of collective learning. Several pieces of new information, contributed by Jack, reflected the interchange between the local agenda of the collective and the knowledge generated and distributed within the larger organization.

Robert's casual interjection of a small bit of information about SX1 prompted a question from Margaret. Margaret's query broke the communication frame and provided an opportunity for the redistribution of resources (knowledge about SX1). Jack's response to Margaret's query also allowed everyone in the group to get a retrospective look at the SX1 project. In addition, the collective was able to link information about SX1 (SX1 is moving off campus) with their immediate interest in space availability.

Segment 3

The third segment contains a 6 minute and 12 second turn of talk by Jack. During the entire turn, there were no interjections or questions. Table 4-11 presents excerpts from the beginning, middle, and end of that segment in which Jack provided the history of a significant business decision to begin funneling outpatient surgeries to an outpatient surgery center that was not part of the hospital, but was an entity within the larger

healthcare system to which Urban Hospital belongs.

Table 4-11
Segment 3 (Urban Hospital)

Text	Action
(Beginning of segment) Jack: Yeah, that's terrific. Well, just for the benefit of the whole group, . . . the planning issue is we support . . . OPS [a system affiliate] is part of the [regional] system [to which we belong] and we have a management responsibility in terms of matrix management, but it's not really a part of our financial statement. So, for that reason it's a little bit of a unique relationship and in . . . other medical centers that I've worked, much of the growth of outpatient surgery has been the movement of inpatient surgery to outpatient surgery.	Explaining Interpreting
(Mid-segment) Jack: . . . So we've really taken in the last year a more genuine look at where we can actively promote and where it makes sense. The other aspect of this is . . . we're losing money on some of the outpatient surgeries that we're doing in our inpatient setting because it's so inefficient. The thing about a center that's designed from the ground up to do ambulatory surgery is that you can get it down to about a 5-6 minute turnaround time on cases and really be highly productive in terms of number of cases per room. Whereas when you're in an inpatient operation it's extremely difficult to achieve that turnaround time, just because of the severity, complexity.	Informing Explaining
(Mid-segment) Jack: Fact, just a brief anecdote, one of my more amusing moments on this subject was at [previous hospital] when we developed the ambulatory surgery center there in the 80s. The then director of the inpatient OR decided this was really the wave of the future and she thought she would like to apply for the job director of ambulatory surgery. Well, I got such pushback from the surgeons. They . . . "Oh no, this will be terrible because the person isn't progressive etc.," etc., etc. So we went through a search process and . . . there was some resistance but in the end it was really clear that the individual we had for inpatient was the most qualified of the people that applied. And at that time the field wasn't that mature yet, so it's not like there were thousands of people that had a good background in this particular type of center. Well, within 6 months of operation, to a person, the surgeons came back and said . . . "Wow, I had no idea how good L was in terms of leadership and running the operation." And again, to me it was a very good example, that it's the structure and all the processes that you develop around that structure when you're looking exclusively at outpatient surgery. So, we were running 3-6 minutes. In fact, a couple of the surgeons complained that they could no longer keep up with the pace of how quickly they were getting the patients in. So, it was really, to me, one of those discovery moments in terms of the clarity that the same person that was criticized when we had the mix of inpatient and outpatient, in this other structure was viewed as so sensational in her leadership. So, that's a little bit of background in terms of what we're trying to accomplish.	Storytelling Interpreting
(End of segment) Jack: Now one might ask, should we support OPS in light of the fact that at this point we've got to develop an ambulatory care center and we intend to put a surgicenter in the ambulatory care center across the street from the [names another type of hospital]. And my response to that is if you think in terms of the next 20 years there will be continued significant growth in that outpatient surgery. And the other aspect is that there is a sort of natural divide here, where surgeons who do inpatient and outpatient surgery like orthopedic surgery, . . . they will stay in locations where they have the ability to do both. . . . But in any event there will be a natural sorting through process and what will happen is the areas of real emphasis for us in the center that gets developed in the VA will be those areas where the surgeons tend to do both types of surgery. And I think that will be true for a long period of time. So that's something, as D mentioned, that we're sorting through as we develop our projections for the future in terms of what gets brought about.	Retrospective reflecting

Table 4-12
Summary of Segment 3 (Urban Hospital)

Action	Description of learning/ knowledge creation	Structurating properties emphasized
Explaining Interpreting Informing Storytelling Interpreting Reflecting	Description of exploratory learning provided by CEO—search to innovate outpatient surgery structure	Power distribution: Decision-making belonged to a subset of the senior leadership group.

As summarized in Table 4-12, this segment points out dynamics related to inclusion and exclusion. In this segment, following the introduction of an outside speaker who had arrived to provide information about the extension of an outpatient clinic that would be sharing resources with the hospital, Jack began a monologue in which he provided the group with the history and rationale for a decision that was already made to funnel certain outpatient surgeries to OPS, a system affiliate.

Jack's narrative is dense with examples of retrospective knowledge creation that included three members of this senior executive group (Jack, John, Betty). The rest of the group was hearing about it for the first time and in the process learning about their subordinate position with respect to this decision. Jack's use of the words "we" and "I" with respect to the clinic decision reflect that the "team" was excluded from the decision-making process. Further into the monologue, Jack pointed out the distribution of power related to not only this issue, but other future planning issues. This interpretation was supported in the individual interviews as members shared their belief that decisions had already been made by the time they reached the leadership meetings and, further, that decision-making did not include all members of the team.

What followed this segment was another long segment by the guest speaker, who explained the functioning of the outpatient clinic. She and Jack engaged in an exchange with brief interjections from Tim (who was representing John, the chief financial officer,

at this meeting) for 11 minutes and 4 seconds. When she asked the group if there were questions, the group was silent. The learning here was on two levels. First, the group was informed about an innovative project (exploration) that would have some impact on the distribution of resources within the hospital (physicians, durable medical equipment, perhaps other personnel, and so on); second, the group's beliefs about the distribution of power (practical knowledge) related to decision-making were punctuated.

Segment 4

In the fourth segment, the group was in a finance meeting to discuss how to improve capture of medical charges from various service lines. Margaret asked to be recognized. Table 4-13 presents the sequence in which Jack recognized her and she informed the group of another problem with charge capture related to distribution of medication from an electronic cabinet that was designed to allow the user to capture the charge as medication was accessed.

Table 4-13
Segment 4 (Urban Hospital)

Text	**Action**
Jack: Margaret?	Responding
Margaret: Um, this doesn't relate to the physician capture, but, you know this has been an ongoing issue and I don't know if you know this, but since we switched from the Omnicell supply cabinets to the Pixus, we are not capturing any of the charges out of that right now.	Speaking out
(Pause—2.5 seconds)	Hearing
Robert: And part of the problem is because of the open concept, so we're looking.	Explaining
Jack: It's ridiculous.	Reacting
Robert: Converting to . . .	Explaining
Margaret: No, no, these are the over . . . the ones that are actually in the cabinets.	Repairing
Robert: The closed?	Checking
Margaret: The closed.	Repairing

Text	Action
Robert: Cabinets?	Checking
Margaret: We're getting no charges from that, so, and we're talking about . . . a significant—	Bridging
Betty: WHAT?	Reacting
Margaret: number of dollars.	Bridging
Robert: Wait a minute. Is this the under—	Asking for clarification
Jack: That's millions.	Reacting/registering
Betty: Forget the physician billing. Do something about this first. Heh, heh, the physician stuff will get you peanuts.	Reacting
Jack: Right.	Agreeing
Margaret: I'm flabbergasted. Why do accounting on it if we're not going to capture the charges?	Reacting
Robert: So why are we not capturing?	Questioning
Jack: I'd not heard anything about this. This should go to the top of the list.	Reacting/deciding
Margaret: I mean, we used to do it when it was an Omnicell cabinet.	Clarifying
Jack: Right.	Acknowledging
Margaret: When it moved to Pixus . . . there's some obstacle.	Clarifying
Krista: (invited subject expert): The general story with this is . . .	Explaining

Table 4-14
Summary of Segment 4 (Urban Hospital)

Action		Description of learning/ knowledge creation	Structurating properties emphasized
Responding Hearing Reacting Checking Requesting clarification Questioning Clarifying Acknowledging	Speaking out Explaining Repairing Bridging Agreeing Deciding	Information provided group with increase in technical knowledge; group learned about a failed process.	Communicative structuring—Query by Margaret breaks conversational frame, redirects meeting talk. Normative structuring—Margaret requests a turn of talk; Jack acknowledges request and selects her.

In this segment, when Margaret was recognized by the leader (Jack), she had already linked the information she was about to share with the preceding talk about charge capture among physician service lines. She was able to do this because she had

been tracking the previous talk, evaluating what was important and what could be discarded. That process of tracking and evaluating generated a decision to share new information ("we are not capturing any of the charges") that she considered would be unexpected by the group. Margaret's query broke the turn-taking framework and initiated a long interactive sequence in which the group enacted new understandings of a previously unnoticed situation. Following Margaret's announcement, the group paused for 2½ seconds, a pause that suggested group members were each trying to make sense of new and unexpected information.

Robert first attempted to explain the situation through the lens of his own interpretation of the information. Jack reacted as Robert continued with his explanation. Margaret corrected his misperception. He checked back in to be sure he was hearing correctly. Margaret confirmed by emphatically restating the information and helped the group make sense by linking the lost charges to lost revenue as Betty reacted loudly with an exclamation, "What?" The group learned that the hospital had been losing revenue because of a problem with the medication charging system. The introduction of new information presented the group with a problem to be solved.

The introduction of unexpected information moved the group into collective thinking focused on the question: How could this happen? The focus was on the immediacy of the issue and the immediate need to resolve it.

Unfolding this episode as talk in interaction, it can be seen that Margaret was tracking the conversation intently as Betty shared information about charge capture in her area. Margaret possessed this information at the beginning of the meeting and found the space within which to "tell it." However, unlike Betty, who self-selected into a turn,

Margaret requested a turn, indicating a distinction in the power relations within the group.

The information prompted a loud reaction and questions from group members as they tried to comprehend a situation in which they had not been capturing charges for over 3 years. As they recovered from their surprise, Krista, a member of the operations staff who had been invited into the meeting to present on other issues, volunteered that she had knowledge that could help to explain the situation. Her explanation provided the space for the collective to link the new information to the institutional knowledge that she presented. Krista described the path of the information breakdown (structuring), which provided a way for the group to make sense of what had happened. The solution directed by Jack was to immediately schedule a meeting with the vendor.

The introduction of this information at this time raised an interesting learning problem for the group. The situation had existed for 3 years. It involved millions of dollars of lost charges, ultimately revenue to the hospital. Yet, not only Jack, but the rest of the leadership group, knew nothing about this. A subordinate leader within the organization knew, understood the history, had at one time been part of the history, but at present was in a different job in which she had no direct link to the situation. During this meeting, the group did not enact an exploration of how this information had escaped the knowledge of senior leadership group members for 3 years.

Segment 5

Table 4-15 presents the fifth segment in which Betty made a case for her need for real-time data in order to continue to make process improvements with physician groups that could result in cost savings to the hospital.

Table 4-15
Segment 5 (Urban Hospital)

Text	Action
Betty: But you know, Jack, . . . you and I always repeat that, but it's 18-month-old data that we're repeating it on, and as the guys that I met with this morning, what they're saying is you asked us to change. We moved over to [new supply vendor]. We did a number of different things. Show us the data where we're at, and then ask us again to do something. And I think that's very appropriate.	Reporting
Jack: Well, there's also been positive movement in managed care, contracting in orthopedics, so we may be looking at a different—	Topic changing
Betty: Absolutely, absolutely, so, but Jack and I keep saying we don't make money in orthopedics, but we generally, we've done a lot of work. Let's see where we're at. I'm sure we have more work to do, but we've got to have a level of understanding. And the other thing that I have to understand is where is it? Is it our sports guys? You know, if it's our sports guys that we're not making money in the hospital, DL can make money in OPS [a system affiliate]. So do I take all my sports guys, help her buy equipment, and put them in OPS? This is the kind of data that we really need as much and as fast as you can get it to us.	Describing; Informing Reflecting; Hypothesizing Asserting
Tim: All right. I've talked with Joe about this, and I'm used to doing reporting just as you say, within orthopedics, joint, hip, knee, shoulder, etc.	Resonating
Betty: That's what I need.	Validating
Tim: But also my group. I had five groups that we tracked, and they're all complementary, so it was very easy to track. I haven't got my hand around here yet. I was very interested to hear that you weren't making money on orthopedics and I don't quite frankly believe it, but that was 60% of our margin where I came from, so . . .	Reporting Reflecting Challenging
Betty: Recall it's an 18-month-old statement.	Recalling
Tim: Yeah.	Agreeing
Betty: It's an 18-month-old statement so . . .	Recalling
Michelle: Was just recently notified by Health Grades that we've been given a 5-star rating for orthopedics.	Reporting
Betty: Yeah.	Validating
Michelle: Which is one of the few 5 stars they give out (laugh).	Clarifying
Betty: Yeah, but I have to tell you. You know what we asked? Two years ago we asked the guys. Everyone goes on a pathway for joint, okay, so we went on a pathway; we dropped our LOS [length of stay] by a day; we looked at our preop antibiotics and we moved everyone's choice of joint replacement. That's a lot of movement without getting a—and I'm not, you know, I'm not trying to give you too hard of a time, just a little bit of a hard time.	Reporting Evaluating Repairing
Jack: Well, again.	Asserting
Betty: Gotta see where that action has taken us.	

Text	Action
[Jack implies that corporate was going to provide the analysis but did not come through] Betty: Right, but with the discussions we've had with doctors, they moved away from [product]. Almost no one puts in a [product] because that was out—with what we showed the doctors, that our most expensive. So they self—well, they sort of self-selected. The other thing is that we're over 80% at [new supply vendor]. So what has happened is it's sort of a Hawthorne effect. We showed the doctors the data. They self-selected, and what we have to say now is, you know, are they moving in the right direction because we've seen a 10% shift with no direct materials management mandate.	Reporting Interpreting Reflecting

Table 4-16
Summary of Segment 5 (Urban Hospital)

Action		Description of learning/ knowledge creation	Structurating properties emphasized
Reporting	Topic changing	Identified need for enhancement to existing accounting practices in order to provide real-time data. Report on new physician behavior: Physicians learned how to retrieve and utilize data to define more efficient ways to practice.	Power relating: Betty challenged traditional accounting reporting practice.
Describing	Informing		
Reflecting	Hypothesizing		
Asserting	Resonating		
Validating	Agreeing		
Recalling	Clarifying		
Evaluating	Repairing		
Interpreting	Challenging		

In the above segment, Betty argued the case for receiving real-time data about her expenses from the finance department. Within the segment, actions occurring outside the meeting were reenacted in the talk in interaction. Knowledge was generated and distributed. Betty reflected out loud and constructed the puzzle related to expenses. As she unpacked a question, "Is it our sports guys?" she explored a solution, "If it's our sports guys that we're not making money in the hospital, DL can make money in OPS, a system affiliate. So do I take all my sports guys, help her buy equipment, and put them in OPS?"

Tim acknowledged that he was still learning the Urban Hospital system: "I haven't got my hand around here yet." He constructed the puzzle with Betty. "I was very interested to hear that you weren't making money on orthopedics and I don't quite frankly believe it, but that was 60% of our margin where I came from." Michelle validated the work Betty was doing with the orthopedic physicians by informing the

group about a recognition awarded to the orthopedics department. The shift in focus opened another turn for Betty to further describe the efforts of the orthopedic physicians.

The physicians were provided data and in response made changes in their practice. “We showed the doctors the data. They self-selected,” and their experiment was successful. Costs were lowered because they “dropped our LOS [length of stay] by a day.” The action of the physicians as well as the action of Betty in this meeting are examples of both learning types, exploitation and exploration (March, 1991). The physicians were building efficiencies (exploitation) and experimenting (exploration) in developing pathways for joints and managing preoperative antibiotics. In the meeting, through talk in interaction, Betty was locally enacting the technical knowledge generated by the finance department.

Summary of Meeting Observations

The group observation data provided a framework within which to identify the reciprocal shaping of structure and action within the senior leadership group interactions. The formal meeting structure was shaped by the patterning of actions of the leader and members of the group. Attendance at the meeting was primarily determined by leader roles. Jack prepared the agenda, seated himself at the head of the table, and started each meeting. The chief officers and senior vice presidents attended the leadership meeting. All members participated in shaping the formal structuring of the meeting through their actions, even as that structuring shaped their actions.

The formal meeting structure included turn-taking, which was usually monitored by the CEO, and lengthy turns of talk, as members delivered reports and provided information. Many interactions during the meeting were dyadic or triadic in nature, with

most turns of talk by group members directed to the CEO. The tone of the senior leadership meetings was professional and subdued. Facial expressions and body language were neutral, and expressiveness in general was low.

Collective interaction in which all members of the group engaged in high levels of participation in meeting talk was minimal. The level of participation in the meeting talk by the senior vice presidents, the chief operating officer, the CNO, and at times the chief financial officer was significantly lower than that of the CEO and the chief medical officer. During most of the meeting time, these members appeared engaged in listening and monitoring the talk, responding when called on by the CEO, or requested a turn of talk when wanting to interject a question or a piece of information. At times, when the turns of talk at the top of the table between the CEO, chief medical officer, and/or chief financial officer seemed extended, some members of the leadership group appeared to disengage, closing their eyes and sitting back from the table.

A notable exception to these interactive patterns was observed when the group was surprised by the CNO's report of a malfunction with the charging mechanism in the medication carts. During this sequence, a temporary altering of the norms took place. Talk in interaction was nonlinear, turn-taking was spontaneous, and more members of the collective participated. The intensity of the communication increased during several turns of talk and then subsided back into the business-as-usual interactive pattern.

Also notable was the high level of engagement by the chief medical officer. During her turns of talk, she frequently switched topics, effectively managing the intersection of local talk in interaction and the larger organizational agenda of effective physician management.

Outside subject experts were invited to report on specific issues related to the meeting agenda. Their reports extended for several minutes, followed by interaction from the CEO. Table 4-17 provides the framework of structure shaping action and action shaping structure that emerged from a synthesis of the meeting observation data.

Table 4-17
Dynamics of Structuration Occurring Within Leadership Group Meetings

Structures shaping actions	**Actions shaping structures**
Formal meeting structure	▪ Membership into the meeting is determined by role and invitation ▪ Agenda is predetermined ▪ Turn allocation is monitored by CEO ▪ Turns are lengthy ▪ Reports are delivered ▪ Information is exchanged ▪ There is mild laughter ▪ Low voices are used ▪ Facial expressions and body language are neutral ▪ There is low expressiveness
Norms governing maintenance of hierarchy	▪ Agenda is determined by CEO ▪ Meetings do not begin until CEO arrives ▪ Most members request a turn of talk from CEO ▪ CMO frequently self-selects a turn of talk ▪ CEO sits at the head of the table ▪ CMO sits next to CEO ▪ CMO's late arrival is overtly accepted ▪ Overt conflict is minimized or nonexistent
Members identify within their specified organizational roles	▪ Member talk is often representative of or advocating for their particular function
Turns of talk are formal and structured	▪ Information is delivered ▪ Collective interaction is minimal
Interaction is primarily dyadic or triadic	▪ Few instances of collective interactions involve several group members at once ▪ Dyadic interactions occur between CEO and group members ▪ Triadic interactions included CEO, CMO, and another group member
Boundaries between functions are rigid	▪ There is minimal cross-functional sharing of ideas
Boundaries between the leadership group and outside participants may be flexible	▪ Outsiders are invited to deliver information and answer questions

Case 2: Community Hospital

Setting and Roles

Community Hospital is a 170-bed acute care hospital located in a large, diverse suburban community situated between two large cities. The hospital employs 1,300 staff. At the time of this study, the nursing management group, known as nursing leadership, was in a dynamic transition. During the study, two nursing directors resigned and responsibilities were redistributed. The restructuring of the group by the CNO ultimately produced a nursing leadership structure that consisted of the CNO, who was also vice president of patient services and a member of the senior executive team, and four nurse directors. The three directors responsible for medical units reported directly to the CNO (although the third position, the director of surgical services, was not filled during the time I was gathering data for this study). The fourth nursing director was responsible for nursing education and reported to the director of medical/surgical services. Figure 4-2 illustrates the reporting structure. The leadership group was responsible for the overall delivery of inpatient and outpatient care.

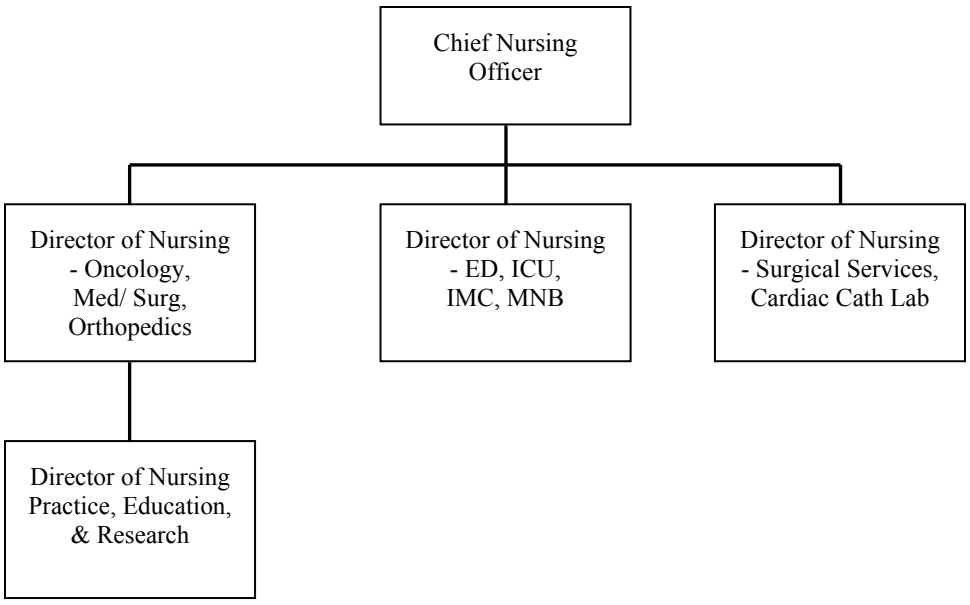

Figure 4-2. Community Hospital nursing leadership organizational chart. Med/Surg indicates medical and surgical units; ED, emergency department; ICU, intensive care unit; IMC, intermediate care unit; MNB, maternal and newborn services.

The next layer of leadership consisted of seven nurse managers who oversaw unit-specific operations. Each unit was composed of staff nurses, nursing technicians, and charge nurses who functioned as shift supervisors. A staff of approximately 400 nurses and nursing technicians reported to nursing leadership. The leadership group, in the form described above, had been together for less than 2 months prior to the individual interviews; however, all members of the group participated in the previous structure, which had been maintained for approximately 1 year. Group member tenures on the nursing leadership team at Community Hospital ranged from 6 months to 4 years (see Table 4-18). The group had recently embarked on an initiative to substantively improve the practice of nursing at Community Hospital.

Table 4-18
Tenure Demographics of Community Hospital Leadership Group

Leadership group member	Length of membership in the group
Chief nursing officer, vice president of patient care services (Meg)	1 year
Director of oncology, medical/surgical units, orthopedics (Ruth)	3 years
Director of emergency, intensive care, intermediate care, and maternal newborn services (Marlene)	6 months
Director of surgical services, cardiac catheterization lab	Vacant
Director of nursing practice, education, and research (Jane)	4 years

In building a profile of the context for this leadership group, it is important to note that nursing leadership at Community Hospital had experienced substantial change in its structure over the 5 years prior to Meg's assumption of the leadership role. When the 20-year vice president of nursing retired in 2002, the position was renamed to reflect its expanded scope of responsibility. The new position, CNO and vice president of patient care services, was occupied by two leaders within 4 years. Following the conflicted termination of the second leader, the former retired vice president of nursing returned to fill the position during the interim while the hospital conducted a regional search for a replacement. During this 4-year period, the structure of nursing leadership changed several times. The most current iteration described above had been in place for approximately 9 months prior to the study.

There was an additional complexity in the leadership group that shaped the context of the group and had significant implications for the interactive processes within and between group members. The CNO and one of the nursing directors had a personal friendship that had a long history outside of work. This was made explicit from the beginning, and at the time of this study it appeared to have been an issue primarily for Jane. Meg described the following:

> Marlene and I were friends and are still personal friends. . . . I would hate to lose that friendship because of work, but Marlene knowingly took this job and the performance that I would expect from her, so I'm not going to give her any special treatment at work. . . . I think Jane still—I think that's where her trust isn't quite there. That when she says something, am I going to give favoritism to Marlene because she and I have been friends for a long time.

The CNO, Meg, a white woman, was in her early 50s with a bachelor's degree in nursing and a master's degree in business administration. In addition to a 30-year career in nursing, Meg also spent 6 years with a large healthcare consulting firm that afforded her a broad overview of hospital delivery systems across the United States. She moved directly from her last consulting position into the role of emergency services director at Community Hospital. Within 6 months of her arrival, the CNO resigned; Meg applied for and was offered the position. Meg indicated that she would continue to seek opportunities that would allow her to increase her scope of influence and responsibility.

Meg spoke rapidly in a stream-of-consciousness manner that required listeners to pay attention. Her casual style and nonlinear speaking pattern belied her perceptivity. She was heavily invested in her own learning:

> I also seek out things like . . . when I first got this position as the VP, I tried to read. . . . I went through and picked out some things that were really talking more about strategic planning and talking about more than just the operations . . . but things that were really more of a bigger, broader review to try to help educate myself about what is expected of me.

Approximately 1 year into her role, Meg indicated she was still on a steep learning curve, engaged in evaluating and refining her role and the structure of the nursing department.

The director of oncology, medical and surgical services, and orthopedics, Ruth, was a woman in her 50s with a bachelor's degree and a 20-year career in nursing. In

addition to various roles she had held in inpatient facilities, Ruth also spent a few years working in management for a home healthcare agency. Prior to coming to Community Hospital, she spent 5 years managing an oncology unit in a busy city hospital. She was a vocal extrovert who spoke rapidly in run-on sentences. She appeared to listen in a reactive way, quickly responding to everything she heard. She was, however, conscious of her communication style and would explicitly state her intention to listen and "be quiet." Ruth contributed a depth of perspective and insight to meeting discussions.

Ruth was heavily invested in building collaboration within her domains of responsibility and across functions. "I spent a fair amount of time trying to bring people together." So she was particularly sensitive to the efforts made by the CNO to open up interunit and interdepartmental communication. "I think that one of the things that Meg's done is she's opened up the silos so some of the stuff that nobody, that a lot of people thought was only related to them, that was only inside of a small area is actually larger."

Marlene, director of emergency, intensive care, intermediate care, and maternal newborn services, was in her 50s with a bachelor's degree in nursing and a master's degree in healthcare administration. She had practiced nursing for 30 years, been an active member of the Emergency Nurses Association, and held various roles in hospital nursing leadership. She was also a recognized expert in emergency preparedness. Like many nurse leaders, she took pride in the fact that most of her "real" leadership development has been on the job by the "seat of [my] pants." She was reserved in the meetings I observed and often had difficulty inserting herself into the discussion. Her contributions were spare, but often recognized as right on point by the rest of the group.

Her ideas and the questions she raised often provided another perspective to the leadership group.

Marlene appreciated the cognitive diversity of the leadership group and the opportunity it presented for innovative thinking. “Yes, yes, I’m always thinking out of the box. . . . We challenge each other with out-of-the-box thoughts and then we kind of chisel them down and come up with something.” She saw the interactive process of the group as an ongoing learning opportunity. “The three of us, we’re learning from each other.”

The director of nursing practice, education, and research, Jane, was in her 50s with bachelor’s and master’s degrees in nursing. She had worked in both the academic and healthcare environments over the past 20 years. She was dedicated to developing nurses, and because she did not direct a clinical service, she brought the perspective of someone who was constantly evaluating the practice of nursing throughout the hospital. Her contributions in the meetings I observed were thoughtful but often laden with so much detail that her point may have not always been made. She listened intently and often contributed an idea or raised a question that no one else in the group had thought about. Her colleagues clearly respected her knowledge and perspective. Ruth expressed it this way, “We really needed to involve Jane, because . . . even if she thinks no one is going to agree with her she is still going to say it. And I think we need that as a group.”

All of the members of the nursing leadership group appeared reflective and articulate. Jane appeared to be the most deliberative and thoughtful. She had a great appreciation for what she viewed as the selflessness of the group and saw it as a reflection of the culture of the hospital.

> The piece which I think is unique here, which allows you to get on the verge of thinking I can’t do anymore and then finding somebody—and it could be at any

> level—[who] will step forward and say, "You look like you need assistance. What can I take off your plate, or what can I help you with, or what can I help you brainstorm?"

In the nursing leadership structure, Jane, a director, reported to another director, and that appeared to be awkward and challenging for Jane. When Meg restructured her staff, she changed the titles to "director of nursing" to reflect the expansion and consolidation of responsibilities. This resulted in the elimination of two director positions and a reorientation of the third position. Two of the three left the hospital and the third, Jane, was named director of nursing practice, education, and research and shifted to report to one of the directors of nursing. Meg described the rationale for this decision:

> It was a conscious decision that I made that her role, and her performance and the expectations are different than Marlene and Ruth. So I debated . . . about changing Jane's title to either coordinator, or manager, or something of a different nature. . . . I didn't want, if Jane ever left the organization, I didn't want someone to look at her resume and think she had been demoted because she hadn't performed well. So I wanted her to keep that title. And we sort of juggled around a little bit.

Jane expressed disappointment and frustration about her exclusion from some of the informal meetings among the other three leaders:

> But I can tell you I sit in on meetings and hear "Well, that was discussed Thursday evening," but it was discussed Thursday evening at a meeting I wasn't at, and so I'm a couple of steps behind and sometimes not sure. . . . So the restructuring where I report through Ruth has—there [are] things where I'm not aware of any longer. . . . I don't know what people's work projects [are], I don't know where they're going with the plans within their departments.

Analysis of the Interviews

Consistent with the examination of the Urban Hospital leadership group data, the analysis of the Community Hospital findings is organized to reflect group members' representation of their group process related to learning and knowledge creation. Again,

the interviews were organized around the structurating modalities of signification, legitimation, and domination as described by Giddens (1984). Likewise, this analysis responds to Research Subquestion 4: How do members of the leadership group experience the learning and knowledge creation processes of their group?

Members of the Community Hospital nursing leadership group identified themselves as a collaborative group in which member actions shaped the overall functioning of the group. Members were expected to pay attention to their communication processes, to support collaborative learning within the group, to speak up and voice disagreement, and, independent of the leader, to negotiate issues of conflict with each other. All group members identified leader actions that positively shaped the behavior of this team. Jane stated that the change in her reporting relationship made by the CNO was an issue that remained problematic for her and that she engaged in discussion about it with both Ruth, the director to whom she reported, and Meg.

Below, each dimension of context is further discussed as it relates to the dynamic interactive processes within the group that enact learning and the development of new knowledge.

Communicative Structuring (Signification)

1. Conscious interrelating contributed to effective working relationships within the group. During the past year, members of the group participated in a leadership communication workshop that had been delivered several years earlier to leaders throughout the hospital. The entire leadership group within the hospital had found the tool so useful that it had become well embedded into the culture. The tool, called Management by Strengths (MBS) (Postelwaite, 1985), is formatted similarly to the

Myers-Briggs and other temperament tools that have been developed over the past 30 years to assist group members to communicate more effectively with each other. The tool relates four colors to four temperaments that have distinct descriptions related to temperament preferences:

Red = Results-oriented, problem-solving

Green = People, teamwork

Blue = Timing, harmony

Yellow = Precision, perfectionism

Members of the nursing leadership group intentionally used the MBS model in a dynamic way. Group members regularly referred to the colors as a shorthand way of communicating an understanding of their varied temperaments. Their knowledge about temperament guided their communicative interactions with each other. For example, Ruth remarked:

> Meg'll look at me and go, "Okay, can you just give me the red answer to that?" It makes you realize that first off, for me anyway, you go on too much. . . . Jane is a green, but she's not a typical green. Marlene is a blue, but she's not a typical blue. Bottom line is there is diversity in the way we think about things.

Marlene's description of group communication indicated how she used the temperament tool in her interactions. She said:

> She's [Ruth] a green, I'm a blue. She talks a lot, I think more [laughs]. . . . And with Meg's red, I keep saying, "Girl, hold back here, come back here." So, I think we're learning; we bounce a lot of things off each other and in the end we come out with a product.

In this case, as in others, the actions of the group leader appeared to influence the group's use of this tool. The references to the MBS colors interspersed in Meg's conversation were for her as well a shorthand way of describing group interactions. For

example, in discussing her efforts to get group members to consider root causes when problems arise, Meg said, "I needed to prepare them . . . to increase knowledge so we could solve those other problems. And they were more red than I thought so they just wanted to fix the problem."

Normative Structuring (Legitimation)

2. Group members openly and directly voiced disagreement with each other. Despite the uneasiness that often accompanies giving voice to an opposing viewpoint in a group, members saw that process as necessary in order to leverage the diverse knowledge and experience within the group. Working positively within disagreements became an established group norm. Jane said, "I think that . . . it's not always agreeing. I think it's agreeing to disagree."

Group members' efforts to shape communication about differences of opinion in constructive ways were evident in their descriptions about the process. They recognized that they needed to negotiate differences of opinion without threatening or alienating individual members. Jane, in particular, was keenly aware of how seemingly micro interactions might shape significant actions and decisions within the group.

> I may say something at a meeting that doesn't go over real well or kind of goes against where people are trying to go. And you have to carefully state it. You can't just come out with a direct statement; you have to preempt it with the positive side and then say what the concern is. Two reasons I like the concern at the end [are] because I think it allows that to be the point that is left. . . . But then later you'll hear something come up saying, you know, we realize that there was this problem and we've decided to address it this way. There is some historic support for that over time, even with small things. So I think the smaller communication plays into whether or not you're going to be able to handle the bigger-picture communication.

She further described how managing others' disagreement with her point of view has shaped the way she thinks and acts. She said, "I think it forces you to be a little more

proactive instead of reactive. . . . What it's done is forced me to stay two steps ahead and say, 'Okay, what can I anticipate are problems here?'"

Group members agreed that Meg's expectation that members would challenge each other and challenge her was continuously shaping this norm within the group. Ruth said:

> Meg does encourage us to say when we don't agree. . . . Marlene and myself simply talk things out to "Okay, we agree to disagree, or this is something, once we've talked about it, it's not really a big deal." We have some compromise.

Ruth also reported that she found the leader's acceptance of disagreement to be pivotal in her own professional development. She described that "when Meg came in, that's just been like the best. That allowed me to really just open . . . and say what I thought needed to happen, and make some changes." She described experiences in which she and Meg disagreed and reported that the interaction was comfortable and sometimes injected with humor.

> I'll say, "Meg, are you sure that's really the way you want to go about that?" Or, we kind of kid each other. I'll say, "Well, that's really a red answer." And then she'll say, "Yeah it is, isn't it? You think it's going to work?" And then I'll say, "I'm not sure it is going to work quite like that."

Marlene also reported that the functional way in which differences were negotiated within the group has had a significant impact on her ability to participate. She said, "It is not cutthroat like it can be. That has validated my . . . sense of worth, feeling that I am making a difference." The perspective of the group resonated in the leader's comments about the diverse thinking within the leadership group. Meg also indicated that she recognized she had to be intentional in working to convince the group that it was safe

for them to share openly with her. At the time of this study, she described the group's willingness to confront her as an embedded part of their leadership culture. She said:

> The directors, I think, are comfortable enough with me now that they're just like, "You need to get over it. Get over yourself and let's think about it again." They're really a good check and balance for me.

3. The leadership group was collaborative and operated informally. Group members were enthusiastic in describing actions and structures that reflected their mutuality. They reported that they worked together easily and were therefore efficient and effective in their performance. For example, group members perceived that when there was a problem to be solved, they were generally able to quickly come together and generate a solution. Marlene said, "Now here we are in the situation and we sort of just get together and sometimes it's 2 minutes and 20 seconds and out with it. Okay, that's fine, go and do it."

Members reported on a meeting format in which the leader frequently assumed a listening posture that invited liberal discussion. For example, Jane described that Meg

> can bring up a topic and allow the group to spend 20 minutes discussing it and by the time we're done discussing it, I have no idea where she's going to go with that information. But she's sat there silently listening. . . . You know it's going to go somewhere . . . but at that point in time the information she was gathering was more important than her dialogue back to the group.

Even when members were faced with sudden and unexpected change, they reported they were able to collectively coordinate their actions to optimize performance. Marlene's stream-of-consciousness description below characterized the way in which the group effectively processed the redistribution of resources following a decision by the CNO that substantially changed the leadership structure.

> And then when all this happened, . . . we were kind of looking at each other. Oh gosh, what are we going to do? The OR [operating room] is still under Meg, so we were trying to look at the number of FTEs [full-time equivalents] and split up the FTEs as evenly as possible. What would work for the different floors? So I think that it is where we were chiseling away. . . . We just sat and kind of divvied things up. Ok, I'm here. And I'm here for the duration so give me. I think that is really what happened. . . . It was a torment for a time. What are we going to do? . . . It was like, we'll just take it and we'll do it.

Group members expressed the point of view that their ability to effectively problem solve in high-pressure moments was partially shaped by respect that was threaded through their interactions. Marlene said, "I think we have a respect[ful] way with us and treating each other. And I think the more we work with each other, it's become easier. . . . I think we can bounce off each other. And I think we do every day."

4. Leader expectations shaped collective learning and knowledge creation. Within the nursing leadership group, learning and knowledge creation reflected individuals' backgrounds and was enacted collectively and locally. Group members indicated that supporting the learning capacity of the collective was expected by their CNO. Meg's expectation appeared to drive efforts by group members to develop knowledge with each other. Meg was identified by group members as a continuous learner. Marlene said, "Meg is a reader. She brings information to us from readings . . . that make you think differently about whatever it is. . . . You can't just sit there and not be a sponge."

Jane explained that group members were expected to stay up-to-date with respect to professional and managerial knowledge and, further, they were expected to share knowledge with each other.

> Here is a high level of accountability for doing your own job, and where your job allows you to share knowledge with one of your peers, it is assumed that that is going to take place, that it's our responsibility to keep each other informed, and if

> somebody doesn't understand something or hasn't dealt with something before or hasn't read the literature on that, that you're going to find a way to share that either formally or informally.

According to group members, the directors are expected to create this type of learning environment among their subordinate staff as well. Jane indicated that this expectation was implied and modeled by Meg.

> She's never going to tell you that you need to do it, and she's never going to tell you that you're not doing it. It is an assumption that is there because she herself . . . does that. That's evident in the way she can present a project, explain a topic, move forward with an idea. So we have the role modeling.

The group described that learning and knowledge creation were enacted locally, often on the run in the interactions that occurred on a day-to-day basis between and among group members. Marlene described the group process as dynamic and creative.

> I think we challenge each other with out-of-the box thoughts and then we kind of chisel them down and come up with something. But there really are no obstacles. We can do anything we want. . . . I think we are all pretty creative souls with creative thinking, liquid that just comes out. Things just come out.

5. Cognitive diversity was valued among group members. Because of the relationship between cognitive diversity and learning in groups (Driver, 2003), this leadership group's approach to cognitive diversity was one of the key findings of this study. According to Driver, "Just how much diversity is the right amount . . . depends on the tolerance for cognitive novelty of each group member and how safe each member feels within the group environment to experience such novelty" (p. 150).

In reflecting about how collaboration occurred within the group, Jane was able to identify what she viewed to be the individual roles that each member of the group played.

> I think it is the way we own our pieces of the problem. Marlene is very . . . good at putting together [a] detailed action plan, the steps involved, the data pieces that

> need to go behind it. Ruth's not used to doing the data pieces and the spreadsheets and stuff . . . but she's used to being able to communicate with a group, lay out a very clear picture, be consistent in what that approach is going to look like. Meg, something she learned in the consulting was how to take something, make it manageable in a 3-month period of time, . . . so she can direct and kind of keep people on a timeframe that causes the product to kind of come together. . . . I think my role . . . is like the person who ties the project loose ends together, the one who reminds others of who might not be included or whose voice wasn't heard.

Members of the nursing leadership group reported that group members emerged from distinct personal and professional backgrounds, bringing with them varied knowledge and points of view with respect to nursing and leadership practice. They further reported that they worked at exploiting and integrating their differences so as to add value to their interactive process.

Members of the group recognized the differences in knowledge sets and experience history among group members and validated the importance of these variations in their group process. Marlene said, "We do bring different perspectives. . . . I think each of us has some hugely different past experience." Members acknowledged that learning how to negotiate the diverse points of view could be challenging. Jane said,

> As painful as that [being confronted or challenged with a different viewpoint] may be, there's reflection that takes place that forces each one of us to look at our opinion about a need for learning or change and then determine what about that piece that we either live or can't live with.

Power Relating (Domination)

6. Power was simultaneously concentrated within the leader and distributed throughout the group. Leadership group members reported that while Meg set objectives and expectations for group members, her approach was not unilateral. She simultaneously issued a directive *and* invited communication and feedback that could

reshape that directive. Members appreciated the opportunity to navigate between both approaches. For example, in discussing a large capital expenditure, Ruth reported that she actively participated in the final decision. "Meg and I took it and looked at it and decided, yeah that looked pretty good."

In another situation, Marlene described an experience in which her objections to Meg's actions had not resolved positively from her point of view. Yet she was still able to walk away feeling respected. The situation occurred when it became clear that one of Marlene's managers was falling short in her role and would need to step down. However, before Marlene was able to determine how she would announce her decision to the staff, Meg hired an interim manager for the area. This forced Marlene to take action to move the manager out of her position more quickly than she would have preferred. Marlene expressed her strong disagreement and disappointment to Meg after the fact. She reported that she had said to Meg, "I gotta just tell you. [Manager] is still in the position. She would just like to step down. . . . I understand. Sorry, but I'm going with it, but I just want you to know that I feel bad." Having said this, she indicated that she interpreted Meg's actions as part of her "red" nature. She indicated she felt heard.

In thinking about Meg's leadership approach with the group, Jane described Meg as a facilitator. She said, "Meg is not big on giving you the solution. She's more on facilitating you and thinking of a process that you can live with and be comfortable with."

Meg's description of her approach echoed group members' perspectives. She described a situation in which her expectations were not being met. Her supportive approach both established her expectation and assisted group members in identifying obstacles to their achievement of that expectation. In describing interactions with her

group when patient satisfaction scores were not reaching the goal, she reported that she said to the group, "My expectation is that we are performing. Now, let's think how we break down the barriers that keep you from performing because I don't want to leave it [barriers] as an excuse for why you're not performing."

On another occasion when team members were objecting to a directive she had issued, she reported that she said to them, "I believe everything you're saying. What I'm saying is we're going to figure out a way to make this work. So start thinking about it." Meg also indicated that there were times when she was considerably more directive with members of her team. She reported on a conversation she had with Marlene about a responsibility Marlene had assumed in another group:

> So basically what I've said to Marlene is "I don't want to hear that you had to do minutes for Critical Care Committee because you had an opportunity to say, 'I am really sorry, there are not going to be minutes for this if you expect nursing to do it.' But if you've taken it on, then I expect you to follow through and I expect the minutes to be out in a week."

For group members, Meg's directive style was acceptable because it was balanced with an engagement in collaboration with the group. Members stated, "It's easy to get to Meg. We talk often."

7. An environment of psychological safety existed within the team. Nursing leadership group members reported that a high degree of trust was largely the result of leader actions. Meg demonstrated a level of integrity that shaped group members' interactions. Ruth became emotional while describing a negative experience with a former CNO and indicated how important it was to be able to trust her leader. She said:

> What she tells you behind closed doors is what she'll tell you in a meeting. You know what she tells you one day is the same thing she'll tell you the next. To me it is not only a trust, but also an integrity thing.

All members of the leadership group agreed with Ruth's assessment that Meg held the best interests of the organization and of nursing as a priority. She recounted:

> There's a trust that she is looking out for nursing and she isn't just looking out for herself. She's looking out for what is best for the organization, what is best for nursing. And in doing that . . . she has been able to move us forward to where we trust each other.

Meg's objective was for the group to engender enough trust that group members would be able to coordinate their work and leverage it for effectiveness and efficiency. She stated:

> That was sort of my particular focus with that workgroup. It's to have a very defined nursing leadership, and the four of us . . . should at least be able to make decisions about the other person's responsibilities without completely disrupting what they would have done in their absence.

Meg reported that when she assumed the leadership role, trust among group members was low. She indicated that she saw no value in addressing the issue directly, but insisted that over time her actions would signal the emergence of a psychologically safe environment. She said, "I think over time the people that reported to me, hopefully they believed my actions, because I didn't say it in my words. I don't think I ever went to anybody and said, 'I want you to trust me.'" Meg followed the same perspective in looking at the trustworthiness of her team. She recognized that her interactions around problematic issues would shape the safety platform upon which the group performed. She provided the following description of her approach when she felt compelled to address a problem with a member of her staff:

> It was basically looking at their performance. It was . . . did I stumble onto things through a different route that they would have been a lot smarter to come and tell me? And that happens to all of us. And part of it is "I just didn't have a chance to tell you yet." Or even a week later to have somebody say, "I meant to tell you and I completely forgot." . . . I don't think I ever said to them, "I can't trust you."

> Basically what I tried to do was when I had private time with them, I would try to say, "Through the grapevine, I heard about such-and-such. Can you tell me what happened with it? Is there a reason why you didn't feel that I needed to know that?" And then say to them, "In the future, my expectation is, even if it's a voice mail that you need to talk to me."

The environment of psychological safety was further enhanced by the norms Meg set for responding to mistakes or failures in performance. Nursing leadership group members reported that they felt supported in these circumstances. In response to a question about how members would be responded to in the face of a mistake, Marlene said, "I don't think there would be blame." Jane was stronger in her response. She said, "I think that's the beauty in this group and it's why I think there aren't more failures, because we can say something." The result of these efforts was that during the past year the group had become willing to engage in discussion about group process. Previously, these discussions would have been too threatening to consider. According to Ruth:

> One of the things that never was allowed to happen in our leadership group was we didn't really talk about the problems that were going on in nursing. . . . So there was a fair amount of you worked inside of your own way of doing things. And you set up sort of that territorial competitiveness between the areas. So there was not really any sharing. . . . Bringing Meg in, I think her style broke down those barriers, because the other people are still the same.

The second aspect of increased psychological safety was the result of group members' efforts to effectively manage the complexity of interpersonal relationships. The development of communicative interactions in which members refrained from triangulation and challenged themselves to confront each other directly in conflict-laden discussions contributed to a context in which learning and knowledge development were enacted.

Group members acknowledged that differences had sometimes led to conflict among members and, as Jane described, the conflict might be managed in a variety of ways:

> You could see any . . . avenue of presentation of conflict in that group. You could see the body language of somebody who's quiet and doesn't say anything. You could see an emotional reaction where somebody gets teary-eyed. You can see somebody who wants to argue. . . . I think you see at times one person going to another person to try and get an alignment. And I'm not sure that they're looking at doing a two to one, because I really don't think that's what it is. I think you are looking for somebody else, to find somebody else who you think might agree with your position so you know whether to move forward with the conflict. I think it's professionally handled.

Group members appreciated their ability to effectively work through interpersonal differences. They indicated that early in her tenure, Meg had established a norm that discouraged triangulation and encouraged members to address each other directly. Meg was effective in modeling that type of interaction for her staff. She described the following situation involving a conversation between herself and one of her directors:

> Someone made a statement and I said, "You know, that's not really a true statement. So let's talk about the parts of it that are true and leave out the parts that are not true." And I remember when I said it, . . . it was like the conversation ceased for what seemed like an eternity, but it was probably a couple of seconds. And then the person said, "Well, you know, you're right. I did exaggerate." And I was, "Well, that's okay. We all do. But if we're going to tackle this, let's talk about the pieces of it that are valid."

Meg was effective in establishing the norm for direct communication. Ruth stated, "Conversations directly with people is the way you are going to get some things resolved." She went on to say:

> Meg doesn't like to get the emails where it's kinda like "Okay, this person said this person, this and this and this," and then you want Meg to take care of it. It's like why should she be taking care of it?

The norm governing direct communication extended from directors to their subordinate staff as well. Ruth said:

> I'll tell them, "You guys need . . . to be able to deal directly with the manager." They shouldn't be sending emails to me so that I can go back and deal with the manager. . . . When I get an email, I'll say, "You need to talk directly to this manager about this issue. Or the person you referenced in this email is who you need to talk to."

Meg indicated she had learned through experience that triangulation only diminishes the potential of group members to successfully resolve issues of conflict. She reported that when she assumed the leadership position, she observed that her predecessor had established triangulation as the norm for managing the complexities of group member relationships. She reported that as the process became clarified, she became deliberately directive in responding, not to the content of the issue, but to the process.

> I would send emails and I would say, "I don't want another email [to] go across anybody's desk on this. You need to go to somebody's office; you need to pick up the phone . . . and you need to get it resolved. Don't cc anybody on this anymore." And . . . probably the last phone call I got was, "You know, I'm having trouble with such-and-such and she just doesn't listen to me and dadadada." And I said, "Stop right now. The next phone call you make to me about this should be, 'I have been trying to talk with so-and-so and I can't get anywhere. I think the two of us need to come in and talk with you.' And I'll have that conversation with the three of us in a room, but I'm not going to have a one-sided about that, so what I expect you to do is to approach that person and talk to them, and if you really feel you can't bring a resolution, then come talk to me and we'll talk through the pros and cons." And that's probably been 3 months ago, was the last time I got one of those phone calls. And it's one of those things that's dropped off and you don't notice it's dropped off and then . . . oh yeah, I remember the last one.

Summary of Community Hospital Interview Findings

Table 4-19 presents the Community Hospital nursing leadership group's understanding of their group context and of their interactions within the framework of seven context dimensions. These dimensions, organized within the structurating functions

of signification, legitimation, and domination, provided a conceptualization of the structures and actions related to learning and knowledge creation within the group. The dimensions identified reflect the perspective of all group members, including the leader.

Table 4-19
Community Hospital Leadership Group—Dimensions of Context

Structurating function	**Interview data**	**Dimensions of context expressed by the group/leader**
Signification/ communicative structuring	• Jane: I think that . . . you could take, for example, if we use the colors; we have a number of reds, and we have some blues that border on red. Some that want, that see the problem but may not be looking far enough in the future to say, okay, can we live with where we're going to be a year from now? • Ruth: Meg being a red, it's lots of times, you know, let's just . . . do it; let's not even worry about it; let's just do it. Marlene is a blue. Jane is a green, but she's not a typical green. . . . Bottom line is there is diversity in the way we think about things.	Conscious interrelating contributed to effective working relationships within the group.
	• Ruth: Meg, it's lots of time, "Let's just do it." And, you know, Jane will say, "Okay, but from an operation standpoint, how are we going to make that happen?" • Jane: There might be some pushback initially, but I also know within this group that just because you get pushback doesn't mean you weren't heard. . . . The responsibility lies with me to say "I'm having a problem; this isn't working" and feel like you can say that. . . . At least your voice is going to be heard, even if someone is not going to agree with you.	Group members openly and directly voiced disagreement with each other.
Legitimation/ normative structuring	• Marlene: I think we're learning. We bounce a lot of things off each other and in the end we come out with a product. • Ruth: I think the group does a lot of collaboration. • Meg: My goal was to have a good, quick functioning group that was making decisions for nursing.	The leadership group was collaborative and operated informally.
	• Ruth: She [Meg] makes us think about it before. If we decide to go that way, it's because we've sort of looked at everything. We aren't just thinking about it because it is the first thing that pops out of our mouths. • Marlene: If I am going to a conference I always bring something back. • Jane: Meg is going to expect us to set a model of people that stay up to date on practice; that you're carrying out information that's progressive and forward moving. • Marlene: I think we take pieces. Again, this is what we did here. This is something that . . . didn't work. And I think Ruth would bring her pieces in and we would all come up with something that we want to move forward. I don't think you take the whole product that you had before because some things just don't work in each hospital. But some of the learning you do bring. . . .	Leader expectations shaped collective learning and knowledge creation.

Structurating function	Interview data	Dimensions of context expressed by the group/leader
Legitimation/ normative structuring *(continued)*	• Marlene: She comes in with a different mind, the different thoughts and does give another great focus. It gives us a good mix of putting it all in. • Ruth: We really needed to involve Jane. . . . I think we need her to say, "Well, what about this, what about that, and I don't think this is going to work and I think we need to look at this." And we'll be like, okay, well, yeah.	Cognitive diversity was valued among group members.
Domination/ power structuring	• Meg: And it's not that I always assume that my way's the right way, but I assume that if somebody doesn't like what I'm doing, they're going to tell me. • Ruth: Meg's got a very open style of communication, and she is willing to receive as open a style of communication back.	Power was simultaneously concentrated within the leader and distributed through-out the group.
	• Ruth: There is trust that she's looking out for nursing and she isn't just looking out for herself. She's looking out for what is best for the organization, what is best for nursing. And in doing that, it's what's best for the organization and she has been able to move us forward to where we trust each other. • Meg: I think one of the things we've done that's really good is to set up an environment that you can challenge somebody and it's not that . . . I don't like you or you're bad. It's like, well, I don't think that's right. Let's look into that. • Meg: I didn't think there was anything I could do to build their trust in me, except work my butt off. And I think over time the people that reported to me, hopefully, they believed my actions because I didn't say it in my words. I don't think I ever went to anybody and said, "I want you to trust me."	An environment of psychological safety existed within the team.

Analysis of Leadership Group Meeting Observations

The perceptual context of the leadership group described above on its own provides insufficient data from which to identify the dynamic interactive processes that shape the learning and knowledge creation enacted within this group. Again, as in Case 1, observation of nursing leadership meetings provided an opportunity to observe the talk in interaction through which this perceptual context was shaped by and was shaping the dynamic interactive processes that enacted learning and knowledge creation in the group. The analysis of meeting talk was accomplished using elements of the conversation analysis framework.

At the time of this study, the nursing leadership group was still transitioning into its new structure. According to the CNO, the group did not meet on a consistent schedule. Instead, she reported that she conducted one-on-one meetings with her directors every week and conducted informal meetings with the group as needed. In addition, the boundaries around the nursing leadership group meetings were somewhat permeable. Most meetings included other stakeholders or subject experts who provided input on specific agenda content during meetings.

Most of the leadership meetings took place in the executive conference room located just inside the executive suite. The meetings took place around a rectangular table that comfortably seated 10 attendees. The CNO's assistant scheduled the meetings on each member's calendar and sent out an agenda.

The meeting structure was semiformal. Seating was open, and while members frequently left the chair at the head of the table open for the CNO, she sometimes placed herself in a side chair. As members arrived for meetings they engaged in animated conversation with each other, frequently appearing to follow up on unfinished business. When the CNO arrived she often participated in the conversation, which, within approximately 5 minutes would gradually shift into the business of the meeting. The group seemed to move seamlessly from their interactions upon arrival to the meeting agenda.

Nursing leadership meetings were scheduled to last between 2 and 3 hours. Meetings were set up to be working sessions and were usually segmented into three parts: (a) delivery of progress reports; (b) education related to leadership or management practice; and (c) discussion focused on strategy, problem solving, or process

development. In the meetings I attended, most of the time was devoted to strategy or problem-solving interaction.

The specific meeting identified for analysis in this study took place at the home of one of the directors. It was scheduled for 4 hours, with a primary focus on supporting the CNO in finalizing the organization-wide goals for the division of nursing for the current fiscal year. This meeting was chosen for the analysis because of its particular agenda. The focus on goal setting was to preclude the delivery of reports or an education session. The agenda structure ensured that most of the meeting time involved the leadership group in interaction with each other.

The nursing leadership meeting was observed and recorded in its entirety. Attendees at the meeting included the CNO, four nursing directors, and a representative from human resources, who was invited as a subject expert. The meeting was transcribed, and the recordings and transcripts were studied following the same procedures as for Case 1. Recordings were listened to and transcripts were reread several times with a focus on identifying the structures and actions occurring within the meeting.

All members of the leadership group appeared to be highly engaged and participating. Interaction between and among members followed a nonlinear structure. Turns of talk were usually short and often expressed incomplete thoughts, which were commonly extended by the next turn of talk. Turn transitions were often imprecise, and frequent overlaps were noticed. Power was less concentrated in the leader and more distributed among members, as evidenced by members' management of turn-taking and direction of the focus of the meeting. During these instances, the leader engaged in long

periods of silent listening, interspersed with information-seeking questions and occasional queries.

Again, relying on the tradition of conversation analysis, each turn of talk was coded according to the actions being performed by the group member (Pomerantz & Fehr, 1997). The actions identified included inquiring, informing, elaborating, explaining, supporting, exploring, designing, stating opinion, evaluating, correcting, clarifying, reporting, and so forth. Similarly to the analysis for Case 1, transcripts and recordings were further studied by moving back and forth between the data and the structuration framework defined by Giddens (1984). Examining the data closely from this perspective permitted a view of how the structures of interrelating within the leadership group shaped the interaction within the group and how the interaction shaped the structures of interrelating.

Segment 1

In the following segment the leadership group provided input to Meg, the CNO, related to setting a goal for handwashing compliance. Handwashing compliance is a major quality and safety issue in hospitals (Duggan et al., 2008) and can be related to hospital-acquired infections. At the time of this study, Community Hospital had set a 90% compliance rate as its benchmark objective and had been collecting and reporting data monthly and quarterly. Data were entered into the system by function and unit, and outcomes were inconsistent throughout the hospital, ranging from 50% to over 90%. Just prior to this meeting, nursing had been criticized by other hospital leaders for a score that hovered consistently around 90%. The CNO stated that she had struggled to determine an appropriate nursing goal, starting with 90%, the same as the hospital's goal and pushing it up to 96%. This disclosure precipitated discussion about how the data were collected and

reported. At the beginning of Segment 1, shown in Table 4-20, Jane made an inquiry that broke the sequence frame.

Table 4-20
Segment 1 (Community Hospital)

Text	Action
Pat: [a nursing director who resigned shortly after this meeting] 90%— we were still above.	Supporting
Meg: Yes, yes. . . . So I don't want to make a cupcake goal, because I think handwashing is incredibly important. It does our nosocomials [reference to infections originating in the hospital]. It does	Acknowledging; Preferring; Justifying
Ruth: Oh yeah.	Agreeing
Meg: I mean, all those isolation	Punctuating
Ruth: I'm going to	Announcing
Jane: Why didn't you entertain 100?	Frame breaking querying
Meg: Huh?	Reacting
Jane: Why didn't you entertain 100?	Repeating query
Meg: For nursing? I'm okay. I buy the standard, the average.	Clarifying: preferring
Jane: Because didn't we have room for error for handwashing? Can we afford for the patients to have error?	Extending; inquiring
SILENCE	Collective reflecting
Jane: If these goals are supposed to promote the hospital and promote patient safety, can we afford anything less than 100%?	Reasoning; challenging; inquiring
Pat: I mean, we're already at 93 and 94, so we probably do need to aim higher.	Considering; reflecting
Ruth: I think we do too. I agree with Jane. I think it needs to be 100%, and we have to stop accepting less than that. And that's what we do. We [do] that with ID bands. We do that with, we accept it . . . because I'm not perfect. Well, I don't want to be that person that you're not perfect on. L.M. [infection control nurse] just shared with me that they've attributed four MRSA [methicillin-resistant Staph infection) to inpatients on 2W. Now of course they've got 14 and she's got	Agreeing; justifying Illustrating Informing
Meg: Oh	Acknowledging
Ruth: Yeah, but that means handwashing is even more important. Because you've got 14 isolations. There's no way you can give them all separate caregivers. We don't have the caregivers. So they have to be taken care of by more than one. And if we're cross-contaminating, that means we're not washing our hands properly.	Emphasizing; Reasoning
Marlene: We have two. We have two.	Supporting; announcing
Ruth: That's what I want to get to. That's not okay.	Judging

Table 4-21
Summary of Segment 1 (Community Hospital)

Action	Description of learning/ knowledge creation	Structurating properties emphasized
Supporting Acknowledging Preferring Justifying Agreeing Punctuating Announcing Reacting Frame-breaking querying Inquiring Repeating inquiry Clarifying Extending Collective reflecting Reasoning Challenging Considering Reflecting Justifying Illustrating Informing Acknowledging Emphasizing Judging	Searched beyond existing and accepted practices and took a risk by declaring 100% compliance as a goal Enlarged the question beyond data collection to practice	Challenged normative structuring Distributed power as group members used their knowledge and experience to influence this decision

One of the immediately noticeable features of Segment 1 was that within 1:27 minutes, there were 17 turn transitions in which five members performed 24 separate actions. The concentration of transitions and actions reflected a high level of collective involvement in the conversation.

This segment also illustrated the power of a query, defined within the tradition of conversation analysis as a turn of talk that breaks "the conversational frame, addressing an aspect or issue beyond the frame of the current discussion" (Boden, 1994, p. 124). Jane's well-timed interjection of a simple query, "Why didn't you entertain 100?" provoked almost a "dumbfounded response" by Meg as she responded with "Huh?" After Jane repeated the query, Meg dismissed it, indicating that she was satisfied with the current situation. Jane continued her pursuit, punctuating her query by linking handwashing errors to the patient experience. Her second inquiry, "Can we afford for the patients to have error?" challenged the group and solicited agreement for her position at the same time. The timing and placement of Jane's query emphasizes that queries "have

the further interactional potential, again through their precise sequential placement, to carry forward both interactional and organizational agendas" (Boden, 1994, p. 128).

Demonstrating the force of a query, following Jane's turn of talk the entire group was silent. At this juncture, members were observed to be looking intently. Their reaction suggested that establishing a goal of 100% represented an idea that had not been considered before. Jane self-selected into another turn of talk following the silence. She continued to pursue her point, linking her position to the understood purpose of writing goals in the first place. "If these goals are supposed to promote the hospital and promote patient safety . . . "

Pat responded to Jane's challenge with a tentative reconsideration of the idea of raising the acceptable compliance rate. Her response prompted an agreement and an emotional elaboration by Ruth of the need to raise expectations regarding compliance with the handwashing directives. Meg responded to what she heard with "oh," an acknowledgment that this issue was of more significance to her leadership group than she had previously anticipated. Ruth used Meg's turn to emphasize the point further and provided a fuller description of the challenges of caretaking 14 isolation patients with limited resources.

Through their talk in interaction, group members enacted the exploration of a novel idea, "trying on" a goal of 100% handwashing compliance. Their voices became louder and their expressions more animated as the group explored this approach. Ultimately, the group decided to establish 100% as its stretch goal for the year, a local determination that intersected with the larger organization.

Segment 2

In the second segment, the group considered a goal related to correct patient identifications. In the list of National Patient Safety Goals, correct patient identification was listed as the number one safety goal for 2010 (Joint Commission, 2009). Instances of misidentification of patients have resulted in critical patient safety errors, such as giving a patient the wrong medication, transfusing the wrong blood type, and so forth.

As the group worked to identify their collective perspective on the goal, they recognized that successful implementation would require staff agreement and engagement with the goal. Traditionally, the leadership group made the decision, and the directive about the process change would be communicated to the staff. In the following segment, shown in Table 4-22, the group experimented in their talk with a novel way of approaching staff with this issue. The novel idea being entertained here was that of engaging with the staff to search for a way to implement the new policy.

Table 4-22
Segment 2 (Community Hospital)

Text	Action
Ruth: And I don't want to lose any staff. You know that.	Stating preference
Pat: That's right. You put out those things that we are putting in place and one number	Validating
Jane: Let them generate, let the staff put it together.	Suggesting
Ruth: Maybe that's	Considering
Jane: Let them come up with the way that we could prevent this from happening.	Elaborating
Ruth: Good idea!	Ratifying
Jane: Write policy. And that's kind of the reverse of the competencies. Med error, I didn't go through the policies on changes. I said, "Okay, this was a med error. Tell me what policies are in place to keep this from occurring?"	Elaborating; providing example
Ruth: That was almost like a root cause analysis.	Interpreting

Text	Action
Jane: Right, and they did a great job with six examples, two of which were horrible.	Confirming; Reporting
Pat: You know what? Maybe a meeting like we did with the charge nurses and the managers when they were changing positions—do it with nursing. Have a town hall meeting, roll out the AOP [annual operating plan] goals, and maybe kind of hit them.	Suggesting
Ruth: Put out the 100% stuff and are we really willing to accept. Because you know when you think	Extending
Pat: One of the consequences are they all hear it.	Evaluating
Jane: Their decision. It's all	Extending
Ruth: Yeah.	Confirming
Jane: Go with the 100%.	Suggesting
Marlene: But then it's up to us then to our pieces, what we're going to do in it.	Naming
Jane: And they know those pieces. . . . I think at some point today, Meg, we need to go back to how we're addressing this because we've now got two [goals] that are pretty scary.	Informing Reflecting
Meg: Pretty darn hard.	Empathizing
Jane: Pretty scary if you're already feeling overwhelmed at the bedside. They're correct statements, but play devil's advocate.	Elaborating
Ruth: I think Pat's idea	Suggesting
Marlene: It's a scary time in healthcare. We've got to step up.	Validating
Ruth: We have to think of addressing it so it's part their idea. I don't think you're going to find anybody say, in the room saying, "Yeah, we really think near misses [are] okay, or having patient misidentification, but	Identifying action; Assuming
Marlene: Correct.	Confirming
Ruth: But they need to be able to understand what they're saying when they're saying that, just like us. Like, okay guys, are we really going to put that down on paper.	Explaining; Translating
Pat: Right . . .	Confirming

Table 4-23
Summary of Segment 2 (Community Hospital)

Action	Description of learning/knowledge creation	Structurating properties emphasized
Stating preference Validating Suggesting Considering Elaborating Ratifying Providing example Interpreting Confirming Reporting Extending Evaluating Naming Informing Reflecting Empathizing Validating Assuming Identifying action Confirming Explaining Translating	Explorative—Introducing a novel idea; experimenting in talk with the idea and its implications	Communicative structuring—Talk is fast paced, turns are self-selected; members monitor talk; turns of talk are short; members extend each other's turn of talk; members experiment with new idea in turns of talk. Normative structuring—Challenging the organizational norm that exists by which leaders make the rules and issue directives to the staff. Power relating—Decision-making resources are distributed among leadership group members.

Within this segment, group members collectively considered the problem of implementation, taking an exploratory approach to the problem. As the sequence began, Ruth stated her preference that the implementation of this goal would not result in a loss of staff. As Pat began to elaborate on Ruth's concern, Jane interjected an idea, "Let them generate, let the staff put it together." As Ruth considered a different approach to gaining staff cooperation, Jane's extension clarified it. "Let them come up with the way that we could prevent this from happening." As Jane continued, she linked her thinking to an example from her work as a nurse educator, thus positioning her turn of talk at the interchange between the local action of this particular meeting and the wider agenda of the organization.

Together, in their talk in interaction, group members collectively enacted new ideas about limiting the number of patient misidentifications. These ideas may at some point become crafted into a linear framework (policy) where they can be disseminated in a more generalized manner. However, it was in the locality of the meeting, through the

talk in interaction, that the nursing leadership group enacted a novel approach to intervene in the problem of patient misidentifications.

Segment 3

In the following segment, the group considered metrics that would help them better understand reasons for turnover on their units. Historically, human resources published data monthly, but the nursing leaders here indicated that the format was not helpful and initiated a discussion about the kind of feedback they wanted.

Table 4-24
Segment 3 (Community Hospital)

Text	**Learning action**
Ruth: I would like a turnover measure that's meaningful and that I can actually get some info out of it that's going to either help me do something differently or better, either in the hiring process or in the . . . I mean, my goal in med/surg, my goal to me is that they find something inside the organization. In other words, . . . even if they stay in the hospital, I know that doesn't count in the overall turnover but in my mind it counts in my having to re-educate.	Stating preference Stating objective Reasoning
Marlene: It's expensive.	Stating implication
Meg: It also means recruiting.	Extending implication
Ruth: Right. And	Confirming
. . .	
Ruth: We should look at our survey that we just did because there's a lot of info that's coming out of that survey. . . . And I think there needs to be a goal in there that we're going to develop an action plan on the information that we have in that survey. . . . We have a group of people and we know they're all RNs who are thinking about leaving for whatever reasons. And how can we key into finding out, identifying not the people, because I know it's all anonymous, but identifying some actions to maybe change.	Problem solving Framing the question
Marlene: Well, again, if we're looking at 2, 3, 5 years. If 3 years is the, I think that should be the goal.	Reasoning; Evaluating
Jane: 3-year tenure?	Clarifying
Marlene: That's where they, like you say, their huge turn is.	Qualifying
Jane: Well, that's where culturally the younger people change jobs every 3 years. I mean, that's statistically documented, so if you can keep those new grads past that 3-year mark then you're probably going to keep them.	Bridging

Text	Learning action
Meg: Right.	Confirming
Ruth: And is it reasonable to . . .	Questioning
Jane: Well, yeah.	Confirming
Ruth: beat ourselves over the head with, you know, are we looking at it from the standpoint that we're all in the Baby Boomer generation that think that loyalty and being somewhere 10 or 15 years is the way to be? Or do we need to figure out what it is that drives people?	Responding Questioning
Marlene: Generationally . . .	Validating/clarifying
Ruth: Because our organization is a small one. Now maybe once we have our partnership, if there are some other opportunities, maybe we could keep them inside of the system. But right now if they want to see a trauma center, or they want to see a teaching organization, or you know, they want to see something else, they're going to leave.	Extending reasoning Reflecting
GROUP IS QUIET	

Table 4-25
Summary of Segment 3 (Community Hospital)

Action	Description of learning/ knowledge creation	Structurating properties emphasized
Stating preference Stating objective Reasoning Extending Stating implication Confirming Problem solving Reasoning Framing the question Evaluating Clarifying Qualifying Bridging Responding Questioning Validating Reflecting	Identified problem with the data Found a variation in the approach by reframing the issue to look at turnover in the context of generational norms	Communicative— Self-selected turns in which members extended and elaborated each other's talk enacted a new approach to the problem.

Segment 3 began as Ruth outlined what she needed from a data report on turnover in order to effectively use the data. She informed the group that when she knew of a nurse who was thinking about leaving, her goal was to influence the nurse to take a position within the hospital on another unit. She enlarged the idea of turnover as she explained to the group that even though the nurse moving between units in the hospital was not reported in the turnover data, that transition still cost the unit the expense of training a new staff member. Marlene and Meg resonated and validated Ruth's perspective.

As Ruth continued to reflect on the issue, she suggested examining an employee survey to look for clues about turnover. Her reflection shifted the focus from data to problem-solving: *Why are nurses leaving?* Marlene recalled for the group that the data indicated nurses were leaving in the window between 3 and 5 years. Jane checked in to confirm what she heard Marlene say, "3-year tenure?" When Marlene confirmed that Jane had heard her correctly, Jane linked that information to what she already knew about workplace turnover in the 3-year window. "Well, that's where culturally the younger people change jobs every 3 years." Jane extended her turn as she reasoned, "so if you can keep those new grads past 3-year mark, then you're probably going to keep them."

Meg confirmed Jane's statement, and Ruth reflected on the information as she compared the "younger generation" with her knowledge about what drives Baby Boomers to stay on a job. Marlene indicated she was tracking the talk as she interjected "generationally," and Ruth added the information to the problem-solving agenda she had initiated earlier. As members continued to think about what drives people generationally to stay, they anticipated opportunities that would perhaps become apparent as a result of the pending merger.

In this segment, through their turns of talk, members exchanged information and instantly translated it into the local problem-solving agenda.

Segment 4

Table 4-26 presents Segment 4, which provided an example of the group's intentional use of the MBS communication tool (Postelwaite, 1985) and how it had become embedded in their interactions.

Table 4-26
Segment 4 (Community Hospital)

Text	Learning action
Jane: I would almost rather see the goal as directing, correcting a problem instead of a percentage. And use a point system where the units will reduce their rate by 2% or 1% or whatever you pick that's a reasonable percentage because that way everybody can work within, because you know, the [orthopedics] unit doesn't have a whole lot of turnover.	Stating preference; reasoning
. . .	
Meg: You, you bring your yellow along.	Describing
Marlene: But I like sort of what Jane was saying about the percentage being	Defending
Jane: Bring it down?	Extending
Marlene: Yes.	Confirming
Pat: Yeah for that yellow!	Cheering
Meg: Every now and then I'm yellow.	Joining
Jane: Oh, I'm yellow.	Joining
Meg: My yellow pops in and then it gets diluted.	Joking
Laughter overlapping	Releasing

Table 4-27
Summary of Segment 4 (Community Hospital)

Action		Description of learning/ knowledge creation	Structurating properties emphasized
Stating preference	Reasoning	Information provided to group member about her style of interaction	Communicative—Intentional use of MBS framework
Describing	Defending		
Extending	Confirming		
Cheering	Joining		
Joking	Releasing		

In the fourth segment, Jane delineated her preference for a metric with which to establish progress regarding staff turnover. In the following turns of talk, Jane continued to elaborate on the details of the metric. Meg commented, "You bring your yellow [yellow indicates a focus on details and on getting it right] along," invoking the group's shorthand way of pointing out that Jane's "yellow" temperament was apparent to the group. Her interjection, timed in the midst of Jane's reasoning, provided a softer way of

suggesting that Jane may have been coming on too strong or that the level of detail Jane was providing was more than what was needed for this conversation.

Meg's comment prompted Marlene to come to Jane's defense as she stated, "But I like sort of what Jane was saying about the percentage being. . . ." Jane appeared to almost miss the reference to the way in which Meg was interpreting her interactions. Pat cheered on Jane's "yellow" temperament and Meg validated Jane by identifying the "yellow" dimensions of her own temperament with "Every now and then I'm yellow." These validations were followed with Jane's assertion, "Oh, I'm yellow," as she broke out of her reasoning and joined the new focus of the conversation.

This segment demonstrated the way in which an embedded communication tool was intentionally applied to shape the interactions within the group. It provided a glimpse of one acceptable way in which group members shaped each other's interactive style.

Segment 5

The focus of the fifth segment, presented in Table 4-28, was Meg's distribution of several articles to her leadership group. As she handed them out, she provided a short description and linked each article with the current work practice of the group. The segment provided an explicit example of action taken by Meg to interject outside information into the leadership group. She called their attention to each one, pointing out the specific application to their current work practice.

Table 4-28
Segment 5 (Community Hospital)

Text	Learning action
[Meg distributed copies of articles she had prepared for the group.]	
Meg: Basic information. Take one and pass it along. This one's just about exactly what Ruth was saying is we need to figure out a way to grade our nurses. So that's just a little short article that I read about—yes, you need to do that.	Describing
Marlene: Oh, I read this one!	Joining
Meg: Yeah, I thought it was pretty cool. Then I've got one on how to calculate investment in the ED [emergency department]. This would be—I think I got this from Press Ganey and it's, it would be very easy to do this with any of our units.	Evaluating
Ruth: This is kind of what they were doing at St. Joe's, I think, because they use their . . . They have a matrix, much like ours, and they do their staffing based on what their objectives are. Is that kind of what this article's about?	Relating Questioning
Meg: Uh-hum. It's sort of like that. It's like okay, how do you know . . .	Clarifying
Marlene: It gives you a formula for what you do.	Extending
Meg: It gives you a formula, and remember Marlene said we lose our market share if we go on divert. How do we know that? And how do you measure that? But how do you sort of pull that together so you can put something tangible with it rather than I know it will work.	Linking to earlier information
Pat: Do most people use these six indicators over here on the left?	Questioning
Marlene: Uh-hum, or variations. And we did it for MHA [Maryland Hospital Association].	Responding
Meg: This is one I found, and I wish I would have found it 4 months ago, but it's interpreting FTE [full-time equivalent] statistics. And so again, as we were talking about, how do we decide how many FTEs we need. And this one also goes into . . . I wanted us to talk about it and figure out how tough it would be to manage it. Because this one goes, how do you solve . . . I do read something other than junk sometimes [laugh]. How do you solve your biggest scheduling headache, and it takes about five to six patients are now treating in the ICU [intensive care unit] at all times, two RNs must be on duty. Same thing with [manager's] unit. I know she doesn't have nurses . . . but she has two labor and delivery nurses if there's no patient in labor and delivery. So how are we being more efficient with what we do have? You know, the same thing in . . . cath lab. There's sometimes five people down there and no procedures. . . .	Describing and linking Joking Linking to ongoing challenges
Jane: PACU [postanesthesia care unit] yesterday morning	Resonating
Meg: Same thing. You see what I'm saying. It's like, how can we work so we can get this to, so that we can use our resources? Because when we really look at our FTEs, we're not bad. It's like I think we're just not allocating them just right.	Questioning

Table 4-29
Summary of Segment 5 (Community Hospital)

Action		Description of learning/ knowledge creation	Structurating properties emphasized
Describing Evaluating Questioning Extending Responding Resonating	Joining Relating Clarifying Linking Joking	Information provided to group linking best practices to the collective agenda	Power relating— Leader distributed knowledge resource to group.

In the individual interviews, each member of the leadership group referred to Meg as a "learner" or as a "reader" and commented that she frequently passed out articles on issues of relevance to the group. At the beginning of Segment 5, Meg downplayed the importance of the articles she was distributing with a quick comment, "Basic information." She engaged the group's interest by pointing out that "this one's just about exactly what Ruth was saying," linking the outside content to the local work of the leadership group. In the next turn, Marlene enthusiastically indicated she recognized the article, to which Meg confirmed her enthusiasm, "Yeah, I thought it was pretty cool." As Meg continued passing out articles, she repeatedly called the group's attention to the intersection between the content of the articles and the work of the group.

Throughout the segment Meg posed several questions to the group:

1. "Marlene said we lose our market share if we go on divert. How do we know that?"
2. "How do you measure that?"
3. "How do we decide how many FTEs we need?"
4. "How do you solve your biggest scheduling headache?"
5. "So how are we being more efficient with what we do have?"
6. "How can we work so we can . . . use our resources?"

Meg's questions were nonthreatening. Frequently, they were phrased as "we" questions, indicating to the group that the search for answers was a collective process in which she participated. In her turns of talk, Meg gave the group permission to *not know* the answers to questions she deemed important to their work and modeled for them her expectation that *not knowing* meant *finding out*.

Overall Summary of Meeting Observations

The group observation data provided an opportunity to bracket segments of interaction within which to identify the reciprocal shaping of structure and action within the leadership group. The semiformal meeting structure was both the medium and the outcome (Giddens, 1979, 1984) of the turn-taking actions of team members that included discontinuous talk, short turns with frequent overlaps, occasional intensity in tone and volume, and animated facial and body language that included laughter and light joking between group members. The structure ensured that attendance at meetings was determined by role and invitation, and meeting agendas were prepared by the leader.

Group members adopted an organization-wide perspective as they engaged in problem solving or strategy development. Members positioned themselves on issues in relationship to a wide view of their role as organizational nursing leaders rather than in relationship to the particular function over which they had specific responsibility.

During leadership meetings, turns of talk were moderately monitored by the leader, and members frequently self-selected into a turn. During turns of talk, ideas were generated and experimented with, information was delivered, frame-breaking queries were made, and collective interaction was maximized. One of the significant findings was the way in which Community Hospital leadership group members oriented their talk to

each other. The transitions from turn to turn were frequently imprecise, and turns were often abbreviated as one member finished another member's turn.

Outside subject experts were invited into the meeting to deliver information and/or answer questions related to specific agenda content. Table 4-30 presents the structuration framework for the nursing leadership meeting.

Table 4-30
Dynamics of Structuration Occurring Within Nursing Leadership Group Meeting

Structures shaping actions	Actions shaping structures
Semiformal meeting structure	▪ Membership into the meeting is determined by role and invitation. ▪ Agenda is prepared and may be adjusted during meeting. ▪ Turn allocation is sometimes monitored by CNO. ▪ Members may self-select into turns. ▪ Interruptions are accepted. ▪ Turns are often brief. ▪ Reports are delivered. ▪ Information is exchanged. ▪ Emotion is frequently displayed. ▪ Intense speech, loud voices, and laughter are present. ▪ Facial expressions are animated. ▪ Sidebar interactions are minimal.
Norms governing maintenance and flattening of hierarchy	▪ Agenda is determined by CNO. ▪ Meeting beginnings have blurred boundaries. ▪ Most members self-select into a turn of talk. ▪ CNO frequently refocuses talk to meeting objectives. ▪ CNO sits between directors at side of table. ▪ CNO invites discussion and challenge.
Member's role identification is with nursing leadership rather than specific leadership function	▪ Member talk is often representative of an organization-wide perspective.
Turns of talk are discontinuous	▪ Ideas are generated. ▪ Idea experimentation occurs. ▪ Information is delivered. ▪ Frame-breaking queries are made. ▪ Collective interaction is maximized.
Interaction is primarily collective; may be dyadic or triadic at times	▪ Many instances of collective interactions involve several group members at once. ▪ Dyadic or triadic interactions may occur between any pair or trio of group members. ▪ Talk is discontinuous. ▪ Leader and/or members finish each other's sentences. ▪ Leader and/or members seek out other points of view.
Boundaries between functions are flexible	▪ There is maximal cross-functional sharing of ideas.
Boundaries between the leadership group and outside participants may be flexible	▪ Outsiders are invited to deliver information and answer questions.

Summary of Findings

The research question sought to identify the dynamic interactive processes enabling learning and knowledge creation in the leadership groups using Giddens' structuration theory. The analysis revealed that the Urban Hospital leadership group perceived its collective learning practice as constrained by leader actions and by the group's difficulty in managing the complexities of interpersonal relationships. Further, group members perceived that power was concentrated in the leader and that his role was primary in establishing the context for interactive practice.

The analysis revealed that the Community Hospital leadership group perceived that its collective learning practice was shaped by the leader's expectation that members would engage in collective learning and knowledge-sharing practices. Additionally, the group perceived that learning and knowledge creation were enhanced by the group's ability to leverage its cognitive diversity, to successfully manage conflict, and to effectively influence and shape group processes and decisions.

Research Subquestions 2 and 3 sought to identify group practices that enact the mutual shaping of structure and action in the context of learning and knowledge creation. The analysis of Urban Hospital group interaction during leadership meetings indicated that turns of talk were primarily monitored by the CEO, turn transitions were distinct, the degree of overlap was minimal, and interaction was primarily dyadic or triadic and often directed to the leader. The norms reflected formal meeting structures, including designated seating at the table, subdued tones, and low expressiveness of group members. Participation in the meetings took the form of reporting, informing, and questioning, with members' level of engagement intermittently waxing and waning. Power appeared to be

concentrated primarily in the leader.

The analysis of Community Hospital group interaction during leadership meetings revealed that turns of talk were primarily self-selected, turn transitions were imprecise, the degree of overlap was substantial, and interaction was primarily collective, with a high level of participation by all group members. The norms reflected a semiformal meeting structure that included a leader-generated agenda, open seating at the table, an animated voice and tone, and high expressiveness. Participation in the meetings took the form of querying, questioning, idea generating, idea experimenting, and describing. Members' level of engagement was high. Power appeared to be distributed within the group.

Figure 4-3 illustrates the dynamic interactive processes reflected in structurating properties of signification (communicative), legitimation (normative), and domination (power relating). The figure shows that, while for the sake of a research study these properties can be bracketed and studied as distinct elements, they, in fact, continuously intersect and shape the reflection of dynamic interactive process. Additionally, within each modality, the distinctions between the two leadership groups have been deliberately blurred to illustrate that any communicative, normative, or power-relating action will shape the structuring of all three modalities. The arrows, while indicating that the relationship between the modalities is dynamic, also reflect the coherence that occurs in interaction. For example, in the discussion about space allocation (Urban Hospital), when Robert pushed back against the norm that governed interactions related to informing and reporting, the communicative modality moved toward questioning, idea generating, and high expressive interactions; the normative modality moved toward a greater degree of

member engagement and nonlinear interaction; and the power-relating modality manifested in a greater degree of member influence on local action.

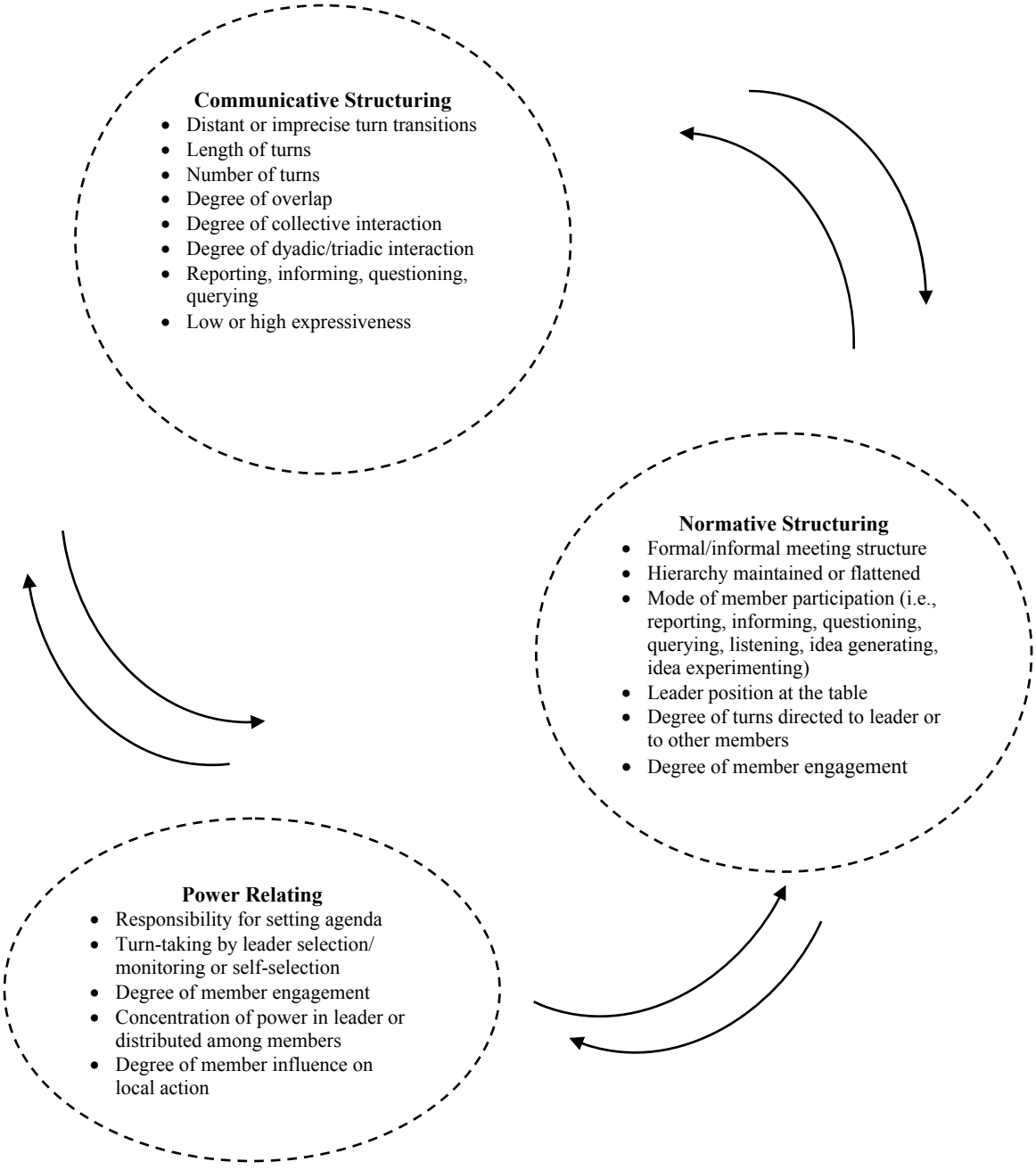

Figure 4-3. Dynamic interactive processes of hospital leadership groups.

Acts of learning and knowledge creation were identified in the turns of talk that generated the leadership group meetings. The leadership group at Urban Hospital

- Learned about a process failure in its medication charge capture system
- Was informed about plans for an outpatient surgery center that reflected an innovative approach to outpatient surgery for the hospital
- Defined and clarified financial report needs
- Experienced themselves working collectively to define facility space needs

The leadership group at Community Hospital

- Took a risk in declaring a zero tolerance for noncompliance with handwashing
- Established a novel approach to garnering staff support for an initiative to improve accuracy in patient identifications
- Effectively utilized an embedded communication tool
- Identified a new framework from which to consider staff turnover
- Was informed about best practices through leader distribution of reading material.

CHAPTER 5:

CONCLUSIONS AND IMPLICATIONS

> How can I know what I think until I see what I say? —Karl Weick
>
> When people talk they are simultaneously and reflexively talking their relationships, organizations, and whole institutions into action, or into 'being.' —Deidre Boden

The primary goal of this study was to deepen an understanding of how leadership groups enact learning and knowledge creation. Although the study was not intended to be a comparative case study, the results reflected a clear distinction between interactions in management team process. The study used a structuration framework (Giddens, 1984) to explore the dynamics of interrelating in two hospital leadership groups. The organizational learning systems model (OLSM) (Schwandt, 1997; Schwandt & Marquardt, 2000) provided an organizing framework for understanding the learning and knowledge creating actions within each group. In addition, conversation analysis, which proposes that social process is constructed in turns of talk between and among interactants (Pomerantz & Fehr, 1997; Ten Have, 1999; Zimmerman & Boden, 1991), provided a structure within which to study the interactional data. The following discussion elucidates what has been learned, how the findings of this research may contribute to practice, and how the questions raised may contribute to further exploration.

This chapter is divided into two sections. The first section answers the research question, presenting the interpretations of the findings with respect to each subquestion and the conclusions developed from the research. The second section provides implications for research, theory, and practice.

Interpretations and Conclusions

The research question provided a direction from which to study the interactions of leadership group members and to explore the reciprocal interplay between structure and action in the enactment of learning and knowledge creation within hospital leadership groups. In addition to answering the research question, what follows is an interpretation of the findings based on the answers, as well as conclusions related to the frameworks of structuration theory, the OLSM, and conversation analysis.

Overarching Research Question

How does a hospital leadership group enact learning and knowledge creation?

The hospital leadership groups examined in this study enacted learning and knowledge creation in the interactional dynamics between and among group members that were shaped by and shaped the patterning of communication, norms, and power relations. In other words, group members interacted with each other within a context they were shaping by their interactions, even as that context was shaping their interactions. The context generated a space in which learning and knowledge creation could occur.

As mentioned earlier, this study was not intended to be a comparative case study. However, differences between the two groups emerged in analyzing the data within the structuration framework (Giddens, 1984). The interactive dynamics occurring within the Urban Hospital leadership group enacted learning that emphasized exploitation (March, 1991) and knowledge that tended to be technical and analytical (Habermas, 1971). The interactive dynamics occurring with the Community Hospital leadership group enacted learning that emphasized exploration (March, 1991) and knowledge that tended to be hermeneutic and relational (Habermas, 1971). In addition, the Community Hospital

leadership group demonstrated critical reflection (Mezirow, 1991, 1981) in examining their own process, a dynamic that was not observed within the Urban Hospital leadership group.

The specific dynamic interactive processes identified within the groups, and how these processes enacted learning and knowledge creation, were the subject of Subquestions 1 and 2. Subquestion 3 looked more explicitly at how the structures of interrelating shaped the patterning of interactive dynamics within the groups. Subquestion 4 provided a perspective on how the leadership group members collectively experienced the learning and knowledge creating processes of their group.

Research Subquestion 1

What are the dynamic interactive processes generated within the group that enact learning and knowledge creation?

Hospital leadership groups enacted learning and knowledge creation within the collective through their interactive talk. The dynamic interactive processes were generated in turns of talk (Boden, 1994; Pomerantz & Fehr, 1997; Ten Have, 1999) as members constituted the business of the hospital. Based on observation and interview data, dynamic interactive processes were identified, within Giddens' framework (1984) of structuring modalities, as communicative structuring interactions, normative structuring interactions, and power structuring interactions. (Such processes are listed within each structurating modality without separating hospital leadership groups.) After listing the processes, the discussion elaborates on each type.

Nine dynamic interactive processes reflected *communicative interactions* that shaped learning and knowledge creation:

1. Turns of talk primarily monitored by the leader
2. Turns of talk primarily self-selected by members of the group
3. Turn transitions that were precise
4. Turn transitions that were imprecise
5. Dyadic and triadic interactions
6. Discontinuous, collective talk in which all members of the group were engaged
7. Patterns of automatic interrelating, characterized by adherence to collective schemas and scripts, such as listening to a report without challenging, questioning, or providing input
8. Patterns of conscious interrelating characterized by "awareness, attention, reflection, by noticing of oneself, one's task, or one's context" (Louis & Sutton, 1991, p. 58)
9. Member engagement or disengagement in conversation with the group

Fifteen dynamic interactive processes reflected *normative interactions* that shaped learning and knowledge creation:

1. Maintenance of a formal conversational tone
2. Maintenance of an informal conversational tone
3. Individual interpretation of information rooted in a functional role context
4. Collective interpretation of information rooted in an organizational role context
5. Sharing of metaphors
6. Acts of questioning

7. Acts of querying
8. Acts of extending questions or queries
9. Acts of voicing disagreement
10. Challenging of another member
11. Acts of reporting
12. Acts of informing
13. Acts of updating
14. Generating ideas
15. Acts of experimenting with ideas

Eight dynamic interactive processes reflected *power-relating* interactions that shaped learning and knowledge creation:

1. Concentration of leadership authority within a specific role (e.g., chief executive officer [CEO])
2. Distribution of leadership authority among all members of the group
3. Concentration of knowledge and information within a subset of members of the group
4. Distribution of knowledge and information widely among all members of the group
5. Concentration of decision making in the role of the leader
6. Collaborative decision making among all members of the group
7. Monitoring and managing of conflict between members by the leader
8. Managing of conflict between members by those members

Communicative Modality

The communicative modality within the context of collective interaction reflected the structure and the rhythm of talk and the patterns of interrelating. Within the Urban Hospital leadership group, the leader primarily monitored turns of talk, and turn transitions were defined and tended to be precise. This created linearity in the rhythm of the talk and structured the interaction to occur primarily between the leader and a member who had responsibility for, or a stake in, the content of the conversation. During instances of dyadic and triadic interaction, members who were not part of the immediate dyad or triad occasionally were intermittently disengaged in the meeting conversation. Automatic interrelating patterns that tended to dominate meeting interactions switched to more conscious interrelating when a problem was identified or unexpected information was introduced. Learning and knowledge creation shaped by these actions reflected member exchanges of information, structuring and restructuring of current processes, and problem identification.

Within the Community Hospital leadership group, turns of talk were primarily self-selected by group members. This generated a discontinuity in the rhythm of the talk. The ensuing collective interaction produced turn transitions that were imprecise, frequently displaying overlap that might include two to five members of the group speaking at once. The pace of the meeting was often slowed as the group shifted from automatic interrelating to consciously reflecting, in talk, on the content and context of the issue at hand. Learning and knowledge creation shaped by these actions reflected member exchanges of information, the development of novel ideas and approaches to old problems, and risk-taking.

Conclusions related to the communicative modality of group interaction point to the ongoing reciprocal shaping of action and structure. First, conscious interrelating among members appeared to enhance a group's ability to leverage its own process. At Community Hospital, the use of a structured communication tool (Postelwaite, 1985) shaped members' awareness of their communicative interaction and of the impact they had on each other. The Postelwaite tool provided information to group members about their personality traits and communication style and pointed out how that style shaped subsequent turns of talk. Members' knowledgeability was expanded at the levels of both discursive and practical consciousness (Giddens, 1984), meaning that there were changes in both what members knew and what they could express about their social interaction. Expanding the boundaries of knowledgeability (Giddens, 1984) appeared to increase members' competence when practicing conscious interrelating. This example of "competence generation" reflects the group's enactment of "'useful practices,' with useful seen to be a necessary contextual and provisional aspect of situation [group] activity" (Orlikowski, 2002, p. 253). Members of a group demonstrated their competence by paying attention to interactions, noticing how one's interactions shape subsequent interactions. Learning how to adjust the timing of comments or questions and how to challenge others in ways that are acceptable and allow the focus to remain on the content of the challenge rather than to stray into the interpersonal domain, members increased the potential for the group to leverage its learning and knowledge creation capacity.

Second, turns of talk among group members enact organizational interpreting (Daft & Weick, 1984) and shape the construction of convergent meaning. It appeared that when group members interpreted themselves to be focused on the needs of the

organization, their subsequent turns of talk enhanced collaborative interrelating, including conflict in which the "orderly interaction around arguing" (Weick, 1995, p. 134) was directed toward decreasing the variety of viewpoints being considered by the group, thus moving the group toward action. Alternatively, when group members interpreted that they were focused on their functional areas of responsibility, their subsequent turns of talk could impede collaborative interrelating. Here, if conflict became less about determining meaning and more about protecting position, it could constrain productive collaboration and limit action. In both of these scenarios, the dynamics of interaction shape subsequent turns of talk even as turns of talk shape the interactive dynamics.

Third, the structure of group talk shapes member interactions, and member interactions shape the structure of group talk. Nonlinear interactive talk in leadership group meetings appeared to create a space for collective thinking, reflecting, brainstorming, inquiring, and so forth. Dyadic and triadic interactions occurring during leadership group meetings seemed to contribute to the disengagement of members who were not included in the interaction.

Normative Modality

The normative modality within the context of collective interaction shaped who spoke when, what was talked about, what was paid attention to, how a decision might be made, and how a question was asked. The formality that prevailed during Urban Hospital leadership group meetings shaped a meeting environment in which efficiency prevailed over exploration. The group was shaped by and shaped a structure within which members provided reports and updates in keeping with their specified roles. Likewise, the

individual interpretation of information was rooted in the context of the functional roles members performed. Turns of talk were frequently extended as members delivered reports or provided updates. Questions functioned as requests for information, requests for clarification, or introductions to a topic change.

The informal context that shaped the Community Hospital leadership group was collaborative, providing a meeting structure in which turns of talk were relatively short and members freely challenged each other's ideas and voiced disagreements. Coherence among members was characterized by the sharing of communication metaphors that described personal communication styles and the willingness of members to engage in critical reflection (Mezirow, 1990). Members questioned each other, seeking information and clarification, and queried each other with frame-breaking questions that, at times, introduced a stream of talk that challenged an old way of doing things or invited the group to take a risk. The collective interpretation of information was rooted in the context of the organizational roles within which members identified. Idea generating was extended as members experimented with new ideas in subsequent turns of talk.

Conclusions related to the normative mediating of structure and interaction emerge from the idea that group norms shape and are shaped by member interactions. Formality in meeting process and tone generated an interactive structure in which turns of talk were monitored by the leader and turn transitions tended to be precise. Reciprocally, talk in interaction such as dyadic and triadic interaction, reporting, informing, and questioning for information or clarification enacted the formal structure of the leadership group meetings. Informality in meeting process and tone generated an interactive structure in which turns of talk were self-selected by members and turn transitions tended

to be imprecise. Reciprocally, collective interaction that included acts of informing, questioning and querying, devising ideas, and experimenting with ideas enacted the informal structure of the leadership group meetings.

The role assumed by the leader and afforded by the group shapes and is shaped by the interactive dynamics of the group. Leader monitoring of turns of talk shaped talk that was directed to the leader and generated dyadic and triadic interactions. This structuring pattern generated acts of reporting and informing, as ideas were reformulated and information was exchanged. Group member self-management of turns of talk shaped talk that was collective, in which acts of talk were directed to the collective rather than to individual members. This structuring pattern generated opportunities for members to voice ideas, challenge each other, experiment, take risks, and share meaning schemes.

The intentional and unintentional actions of the group leader shape the ways in which members manage conflict. Likewise, the intentional and unintentional actions of group members shape the ways in which the leader manages conflict. This dynamic provides an example of the boundaries of knowledgeability (Giddens, 1984). According to Giddens, "The knowledgeability of human actors is always bounded on the one hand by the unconscious and on the other by unacknowledged conditions/unintended consequences of action" (p. 282). At Urban Hospital, the CEO understood it to be his responsibility to intervene in the interpersonal conflicts between members of his leadership group. His actions in this regard were supported by group members' efforts to engage and enroll him in disputes with colleagues. Both the CEO's willingness to be engaged and group members' interest in engaging him had the unintended consequence of discouraging group members from dealing directly with each other to resolve conflicts.

Thus, when either the group leader or members of the group engaged in actions to suppress conflict, the group's ability to leverage its diversity was diminished. When conflict was viewed as a problem, group members were unable to exploit the learning opportunities that may have been available in variant points of view.

Additionally, the effective management of differences between and among members with regard to knowledge, attitudes, beliefs, and values is necessary to enhance group learning and performance (Driver, 2003). In the Urban Hospital leadership group, as members reported on instances of conflict with their peers or with the leader, they expressed frustration that the conflicts remained unresolved. In addition, they tended to assign negative attributes to those with whom they were in conflict. Assigned attributes derived from value judgments and, as such, those judgments further enacted a context in which the leveraging of difference and disagreement was constrained. In the Community Hospital leadership group, as members reported on instances of conflict, they remained focused on the content of the disagreement and were able to describe examples in which they had changed their perspective or understanding of a situation based on a consideration of a different point of view. The context enacted by this leadership group enabled members to leverage their differences and disagreements to enhance group learning and knowledge creation.

Power-Relating Modality

The power-relating modality within the context of collective interaction shaped who determined how turns were selected, who was included or excluded in the conversation, what was paid attention to, what questions were asked, and what priorities were set. The leadership group at Urban Hospital enacted a structure in which power was

concentrated in the role of the CEO; he was considered to have the ability to influence the content and the context of the group's process of interrelating (Giddens, 1984). While individual group members exhibited a command of knowledge and information within their functional area, knowledge and information that spanned functional areas appeared to be concentrated within the CEO, who determined when and with whom it would be shared. Decision-making was concentrated in the CEO or the CEO with the chief financial officer and the chief medical officer.

At Community Hospital, a structure of collaborative interrelating was enacted in the nursing leadership group. Leadership was distributed among members, thus shaping a high level of member engagement, a wide distribution of information, and the inclusion of members in decision-making.

The management of conflict within both leadership groups was substantially shaped by the knowledgeability (Giddens, 1984) of group members about their process. In the earlier discussion about the impact of the boundaries of knowledgeability on actors and structures, it was noted that Giddens asserted that all actors possess knowledge about the intended consequences of their action. However, that knowledgeability is bounded on one end by the unconscious and on the other by the "unacknowledged conditions/ unintended consequences" of their actions (p. 282). Both hospital leadership groups possessed knowledgeability about their actions. When actors expand the boundaries of unknowing by building knowledge and raising awareness about the dynamics of interactive process, their increased consciousness is available to inform subsequent interaction.

The leadership group (members and CEO) at Urban Hospital viewed the monitoring and management of conflict as the responsibility of the CEO, who was sought out by members to resolve issues of conflict. The limits of knowledgeability (Giddens, 1984) within this group were reflected in that the dynamics of human interaction seemed to remain in the realm of the unconscious, shadowed by the purposeful goals of their interactions with each other. At Community Hospital, where the boundaries of knowledgeability appeared to be wider, there was a greater level of interpersonal awareness among group members. In this case, the group's conscious awareness of its own interactive process supported members in the effective management and resolution of issues of conflict.

The distribution of power within a leadership group shapes the level of collective efficacy experienced by leadership group members (Edmondson, 1999, 2003; Edmondson et al., 2003). Reciprocally, the level of collective efficacy experienced by group members shapes the distribution of power within the group. In the group in which collective efficacy was high (Community Hospital), group members accessed their resources, particularly their knowledge and experience, and performed acts of inquiry, acts of risk taking, and challenging of norms. Members, including the leader, perceived that power was at times concentrated in the leader and at times distributed throughout the group. Members, therefore, viewed themselves as coparticipants with the leader in shaping the course of nursing practice at this hospital.

In the group in which collective efficacy was low (Urban Hospital), when invited to engage in a discussion about space, the group was challenged to navigate its way into collective problem solving through talk in interaction. Group members did not engage in

acts of risk taking and challenging of norms. Instead, members engaged in what appeared to be automatic interrelating, performing predictable acts of delivering and receiving reports and information and asking questions to access information or clarify an issue. Ideas that were introduced were focused on reformulating past policies or practices or on leveraging efficiencies from current practice. Members perceived that power was concentrated in the CEO and, perhaps most importantly, did not see themselves as agents who participated in the creation of the dynamics they described.

Similarly, the exercise of power within a leadership group shapes the level of psychological safety (Edmondson, 1999) experienced by leadership group members. Reciprocally, the level of psychological safety experienced by group members shapes the exercise of power within the group. For the Urban Hospital leadership group, psychological safety was shaped by the perception that the leader was consistently seeking agreement and resisting debate; further, it was shaped by both the leader's involvement in instances of intergroup conflict and members' engagement of the leader in instances of conflict between themselves and another member. The leader's involvement in member conflicts generated increasing levels of mistrust within the group and unresolved issues of conflict. This dynamic appeared to limit the group's ability to leverage the differences and disagreement.

For the Community Hospital leadership group, psychological safety was shaped by the leader's frequent invitations to disagree, and by the leader's intention to refrain from becoming involved in intragroup conflict and members' willingness to address and manage instances of conflict between themselves and another member. This group was

able to leverage their differences and disagreements, increasing knowledge and performance capacities.

Research Subquestion 2

How do the patterns that are generated by these dynamic interactive processes enact the context for learning and knowledge creation within the group?

The reciprocal interplay between action and structure (Giddens, 1984) is "how" the dynamic interactive processes enact the context for learning and knowledge creation within the group. In that interplay, patterns are generated that shape the learning context of the leadership groups. Additionally, in that patterning the reciprocal reshaping of knowing and practice (Orlikowski, 2002) is enacted.

The dynamic interactive processes enacted in the Urban Hospital leadership group generated a learning and knowledge creation context that favored exploitation learning (March, 1991). Dynamic interactive processes shaped the features of learning and knowledge creation to reflect efforts to leverage current practices to improve efficiencies (e.g., enhance charge-capture procedures of physician practices) and to reformulate processes in order to speed production (e.g., design of outpatient surgery center aimed to reduce turnover time for operating rooms). The formality of the conversational tone of the meeting as well as the monitoring of group interaction by the CEO promoted the efficient transfer of information from one functional area to another. Group members' knowledgeability (Giddens, 1984) about their collective process and about the dyadic and triadic interactions enabled members to intermittently disengage when a particular topic held no immediate relevance. Turn-taking reflected acts of reporting, informing, and updating. Questions were frequently limited to requests for information or clarification.

Individual leaders interpreted information in the context of their functional roles, selecting what was in the interest of their particular agenda. The CEO and the chief medical officer challenged group members; however, group members did not challenge each other, nor did they challenge the CEO or the chief medical officer. It appeared that the dynamics of interaction were constrained by the leader's monitoring and managing of intergroup conflict.

Figure 5-1 represents the reciprocal shaping of the dynamic interactions and the learning and knowledge creation context of the Urban Hospital leadership group. In this figure, the outside boxes represent member actions shaping the collective structure; the center represents the communicative, normative, and power-relating structures shaping member actions. It is within the mutual shaping of structure and interactive process that the specific learning and knowledge creation of this leadership group is enacted.

Thus, the Urban Hospital Leadership Group learning and knowledge creation context included the following dynamics:

- Organizational information and knowledge were primarily concentrated in the CEO.
- Functional area information and knowledge were concentrated in the individual leaders.
- Information reported during group meetings was interpreted on the basis of individual functional need.
- The group engaged in minimal cross-functional requests for feedback or sharing of ideas.
- Questioning was limited to requests for information or clarification.

- Challenging of other members was determined by power relationships.
- Effort was exerted to minimize task uncertainty.
- 'Surprise' was viewed as a flaw in the system to be repaired.

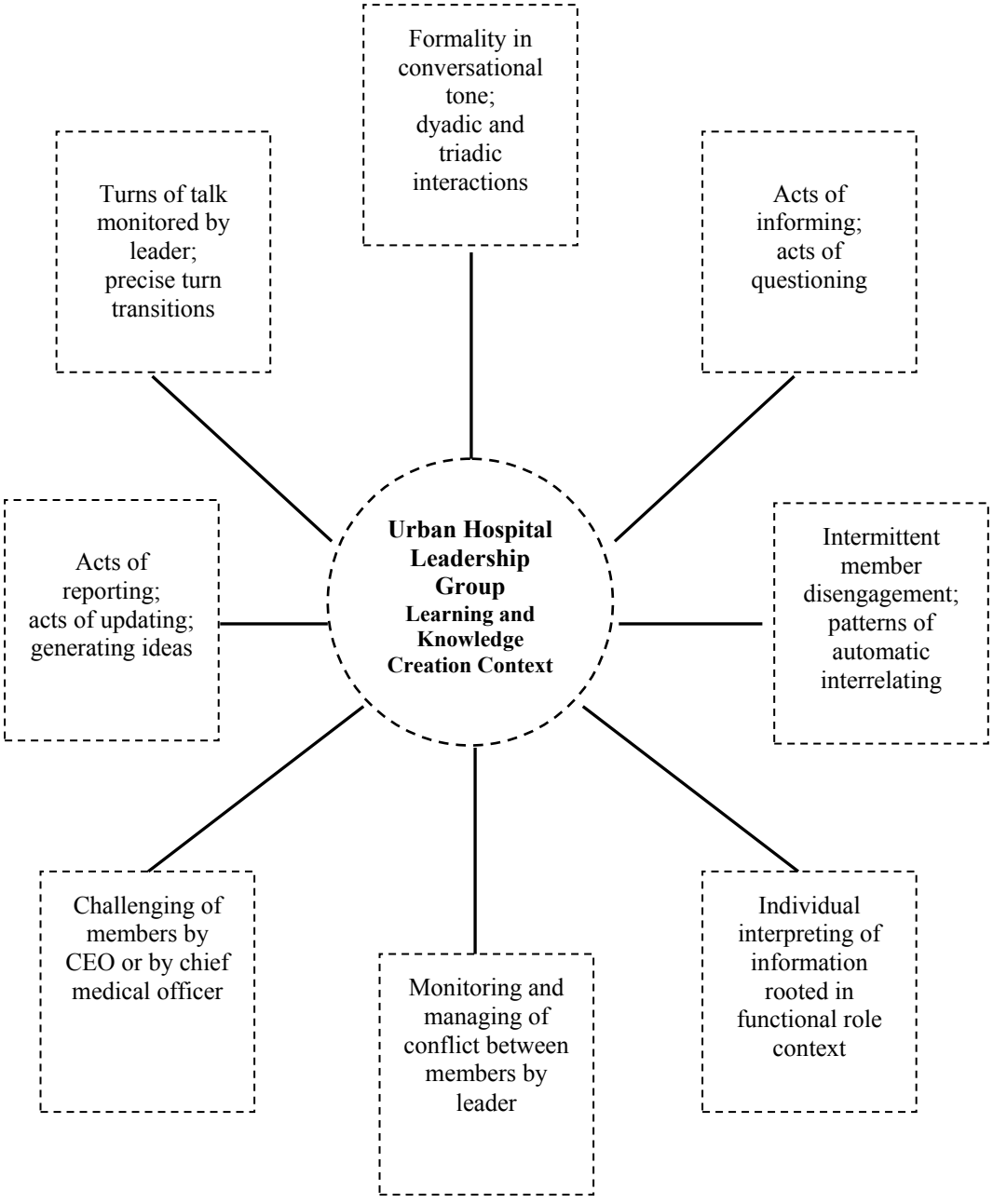

Figure 5-1. Urban Hospital structurating process.

The dynamic interactive processes enacted in the Community Hospital leadership group generated a learning and knowledge creation context that favored exploration learning (March, 1991). Dynamic interactive processes were enacted in collective talk in which members challenged themselves to take risks in establishing goals intended to improve practice (e.g., establishing 100% as the goal for compliance with handwashing) or experimented with novel ideas to engage staff in implementing and monitoring new procedures (e.g., decision to ask staff to develop a way to improve accuracy in patient identification practices). The informality of the conversation tone, the self-selection into turns of talk by group members, as well as the nonlinear collective interacting favored the exploration of ideas and points of view over efficiency. Nonlinearity contributed to the unpredictability of meeting content, which served to promote member engagement throughout the meeting. Leaders interpreted information in the context of their organizational roles, searching for solutions to problems that would address patient care issues throughout the hospital. Group members freely challenged each other, including the leader. Patterns of conscious interrelating, informed by a communication model that was utilized by all members of the group, indicated that member attention was attuned to both the content and the relational elements of interaction. Group members learned how to leverage intergroup conflict by monitoring and managing their own issues of conflict with each other.

As described for Figure 5-1, Figure 5-2 represents the reciprocal shaping of the dynamic interactions and the learning and knowledge creation context of the Community Hospital leadership group.

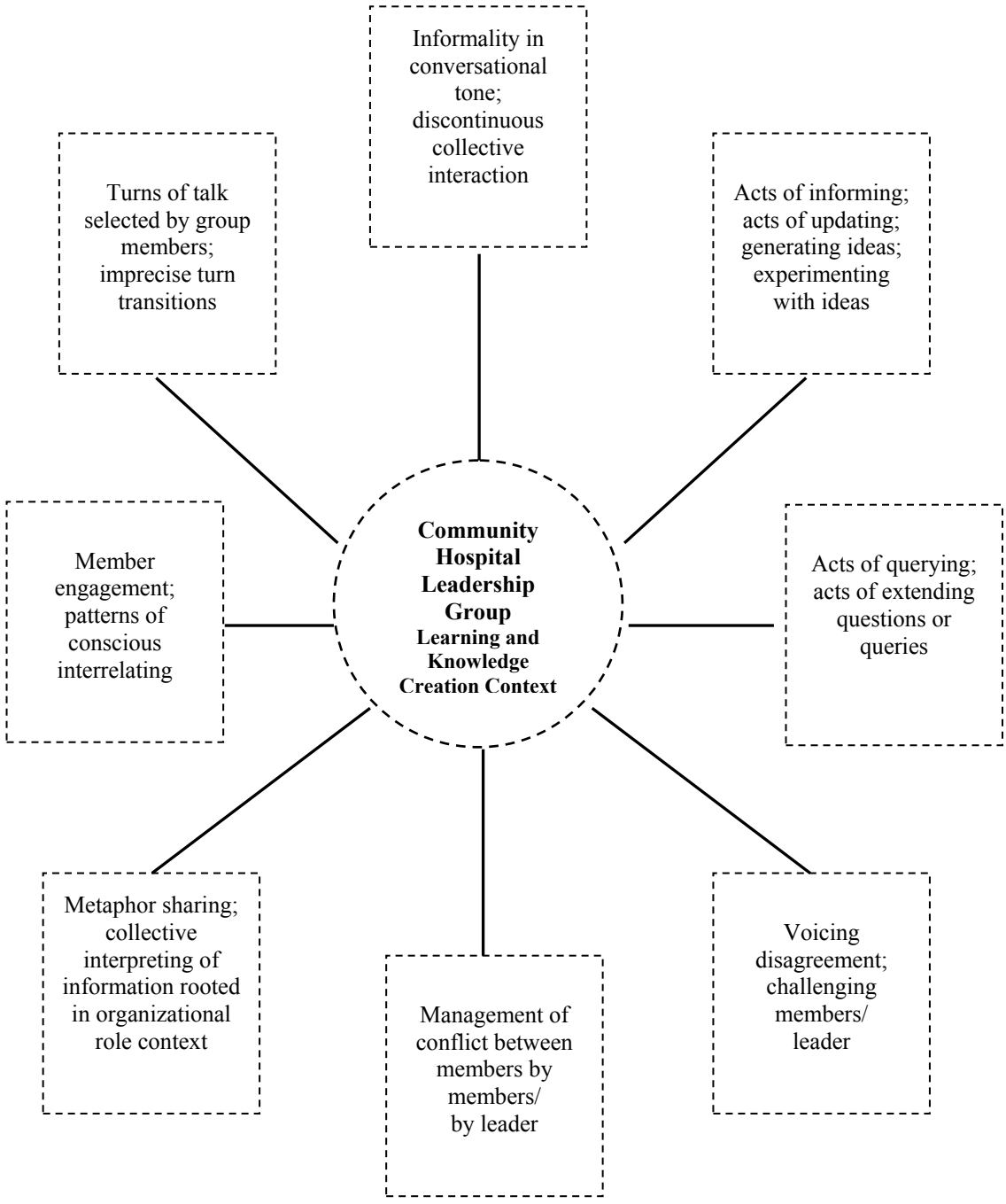

Figure 5-2. Community Hospital structurating process.

Thus, the Community Hospital leadership group learning and knowledge creation context including the following dynamics:

- Organizational information and knowledge were distributed among all leaders.

- Functional area information and knowledge were distributed among all leaders.
- Information reported during group meetings was collectively interpreted on the basis of organizational need.
- The group engaged in cross-functional requests for feedback or ideas.
- Questioning included requests for information or clarification.
- Querying included questions that challenged norms and shifted priorities.
- Challenging of other members was anticipated and expected.
- Task uncertainty provided opportunities for collective thinking.

Research Subquestion 3

How does the structure of interrelating that emerges in the learning context shape the patterning of interactive dynamics within the leadership group?

Again, it is the reciprocal relationship between structure and action that is "how" the structure of interrelating shapes the patterning of interactive dynamics within the leadership group (Giddens, 1984). The focus here is on the specificity of this process to the context of each leadership group. The organizational and collective learning research has repeatedly emphasized that collective learning is complex and that it encompasses more than the sum of the learning of individual members of the collective (Crossan et al., 1999; Fiol & Lyles, 1985; Hedberg, 1981; March, 1991). Learning and knowledge creation are enacted in the relational dimensions of the collective (Schwandt et al., 2006). This perspective asserts that "the creation and utilization of knowledge is dependent on the specific relations and values found within the collective itself" (Schwandt et al., 2006, p. 57).

Therefore, the specific communicative, normative, and power-relating structures enacted by each leadership group shape the group's interactive patterning (Giddens, 1984). So, for example, the more formal communicative structures that were generated in the Urban Hospital leadership group shaped communicative interactions in which turn-taking was more distinct, turns tended to last longer, dyadic and triadic interaction occurred more frequently, and so forth.

The dynamic nature of this relationship between structure and process is especially evident when patterns change. When the Urban Hospital leadership group engaged in collective interaction, meaning conversation in which all members of the group participated, it was noticeable because it stood outside the more common interactive practices (patterning) of the group. Larger group interaction was observed to have occurred on two occasions: first, when one member advocated for it (Robert, the chief operating officer, instructed the group to work collectively to problem solve space issues), and second, when an issue was raised that came as a complete surprise to everyone in the group (Margaret reported that for the past 3 years medication charges were not being captured by the medication supply cabinet system).

Margaret's action, speaking out about the medication charge issue, is an example of the way in which the individual is continually negotiating (timing, evaluating) his or her turns of talk. Collective interaction during those instances was marked by less linearity, the active engagement of all group members, challenges to the directions given by the CEO, and increased self-selection into turns of talk. Although the process was halting at first, ideas were generated within the talk in interaction among these group members. With respect to the space issue, the outcome of the collective conversation was

the collaborative development of ideas across functions about how to manage space. With respect to the talk in interaction regarding the medication charging errors, a number of questions were raised as members probed the information they had to gain a better understanding of the issue. The collective nature of that conversation diminished as soon as the CEO directed Robert to establish a meeting with the vendor for that afternoon.

The more typical interactive patterning of the Urban Hospital leadership group of dyadic and triadic talk between the CEO and one or two other members of the group produced information about the development of financial reporting mechanisms, planning for an outpatient surgery center, and so forth. For example, within the dyadic interaction between the chief medical officer and the vice president of finance, the chief medical officer translated the information she was hearing into goal reference knowledge (Schwandt, 1997; Schwandt & Marquardt, 2000) that could be immediately adapted to challenges she was already working on within her functional area. Within the reciprocal shaping of the structures of interrelating and the patterning of interaction, she enacted learning and knowledge that was valued and meaningful.

In the Community Hospital leadership group, interaction was marked by nonlinear collective talk, in which all members consistently participated by offering ideas, raising frame-breaking questions, challenging each other (including the leader), taking risks, and experimenting in talk with ideas and perspectives. The output by this group included the establishment of a goal that surpassed established benchmarks (handwashing compliance at 100%), a plan to engage staff in managing and monitoring safety practices intended to increase patient identification accuracy, and the dissemination of information about ongoing collaboration between physicians and staff to

decrease bed turnover times and improve patient throughput (the movement of patients through the hospital from admission to discharge).

Research Subquestion 4

How do members of the leadership group experience the learning and knowledge creation processes of their group?

Striking distinctions between the leadership group from Urban Hospital and the group from Community Hospital were found in the meaning schemes each group held about learning and knowledge creation within their respective group. Urban Hospital leadership group members consistently stated that knowledge resided within each of the individuals on the leadership team and that learning was an individual endeavor, not a collective process. Group members acknowledged that learning together would benefit the group. They demonstrated their knowledge of the "circumstances of their actions" (Giddens, 1984, p. 375), as they reported that intergroup conflicts and tensions and the lack of trust among members of the group mitigated against the development of a learning environment within the group. They particularly emphasized that the leader's management of leadership group meetings constrained the potential for learning in that forum. Leadership group meetings reflected that acts of exploitation learning and knowledge creation were dominant in the interactive dynamics between and among group members.

Community Hospital leadership group members consistently indicated that learning and knowledge creation were established norms within the group. They each described the chief nursing officer (CNO) as a "reader" who frequently brought new ideas to the group in the form of books, articles, and references to web pages and

listservs. They further reported that the sharing of new knowledge and information within the group was an expectation set by the leader. Members of this group described problem solving and practice building as actions that could occur in a brief hallway conversation or in a longer planning session during a meeting. They described challenging situations in which they would regularly call on each other to be a sounding board or to provide consultation. They saw themselves operating in a complex and changing environment that required them to "instantly" respond to a myriad of situations that, at times, might challenge their own arsenal of knowledge and experience. Members expressed pride in their interactive process. They appreciated that members "watched out" for each other, that mistakes and at times failures were tolerated, and that improvisation and experimentation were encouraged. Leadership group meetings demonstrated that acts of exploration learning and knowledge creation were dominant in the interactive dynamics between and among members of the group.

Conclusions Related to Collective Learning

The findings of this study have generated four conclusions related to collective learning.

First, *collective learning within leadership groups is contextual and dependent on the dynamic interactive processes located in a particular time and space* (Orlikowski, 2002; Schwandt et al., 2006). It is enacted in the ongoing turns of talk occurring between and among group members. Its situatedness is such that the learning or knowledge that is created, whether technical, instrumental, or emancipatory (Habermas, 1971), is specific to the reciprocal interplay of structure and action within which it is enacted (Giddens, 1984; J. R. Taylor & Van Every, 2000). Further, this research validated the perspective

that the notions of benchmarking and best practice can be misleading because both tend to overlook the contextual dynamics that shape the outcomes of group interaction.

Second, *talk in interaction between and among group members shapes and is shaped by the tendency toward learning as exploitation or learning as exploration* (March, 1991). Turns of talk generate actions that carry within them the potential for learning and knowledge creation. Communicative actions within the context of collective interaction shape what content receives attention, how a decision is made, or what new understandings emerge. Each action performed by a group member—whether informing, questioning or querying, extending or elaborating on a previous turn of talk, agreeing, disagreeing, telling a story, and so on—is part of a sequence in which members explore their curiosity, discover new information, retrospectively refine understandings, enhance elements of current practice, generate a novel idea, innovate a process, or enact another dimension of learning and knowledge creation. The patterning of those sequences over time reflects a tendency toward exploitation or exploration.

The leadership group at Urban Hospital appeared to have settled into a structure that favored exploitation of knowledge and ideas already in practice, while the leadership group at Community Hospital appeared to have enacted a structure that favored generating new questions and ideas, taking risks, and experimenting with novel approaches to old problems.

Third, *when group members intentionally develop communication skills to enhance conscious interrelating, they strengthen opportunities to enable learning and knowledge creation within the group.* Community Hospital leadership group members participated in communication skill building workshops (Postelwaite, 1985) designed to

increase member knowledge about the relationship between personality traits and communication style. The workshops provided members with strategies to enhance their ability to interpret cues from others that could inform their subsequent turns of talk. Members learned how to ask challenging questions or raise queries without engendering defensiveness and how to hear challenging questions and queries without becoming defensive. They also learned how to effectively communicate and receive sensitive feedback. These skills strengthened members' ability to ask questions that probed the thinking of another member in order to enable greater participation in the learning process. Members were prone to share interpretative meaning schemes, to express unpopular ideas and points of view, and to encourage questions and feedback. Questioning, querying, giving feedback, elaborating on member comments, and so forth promoted a learning environment in which both exploitation and exploration could occur. Conversely, members from both leadership groups reported that acts of ignoring, objecting without probing, patronizing, or belittling constrained member participation and thus constrained the potential for learning in the group.

Fourth, *the mutual interplay of structures and interaction patterns shapes the enactment of collective learning within the leadership group.* The potential for collective learning is enhanced when group members are able to efficiently exchange knowledge and information with each other (Gibson, 2001). Communicative, normative, and power-relating structures shaping and being shaped by the patterning of interactions can increase or lessen that potential. For example, a structure in which members are held accountable for the performance of the group shaped turns of talk within the group that tended to be supportive and collaborative. Group members enabled collective learning when they

privileged the organizational agenda over their individual function-based agenda. More specifically, the content of turns of talk of Community Hospital leadership group members was focused on issues of patient care throughout the hospital. Even though each nursing director had a specific sphere of responsibility, the leadership structure was such that the content of interactions during leadership meetings crossed functional areas and thus enhanced opportunities to raise questions or queries, reformulate practices, or generate new ideas.

A structure in which accountability for the performance of the organization is subordinated to the performance of functional goals shaped turns of talk within the group that tended to be competitive and to reflect functional interests. Group members constrained collective learning when they privileged the interests of their role function over the organizational agenda. Promoting a point of view to the exclusion of other points of view and advocating for one's interests without considering how they fit with other interests and how they promote the whole enterprise may shape a context in which competition and territorialism constrain efforts to exploit the past or explore the future. For example, the content of turns of talk of Urban Hospital leadership group members was oriented to their designated role function within the hospital. The boundaries between functional areas appeared inflexible as member exchanges emphasized functional interests. Even when a group member initiated discussions for a cross-functional broader purpose, he reported that the interaction reverted to interest-based input.

Conclusions Related to the Organizational Learning System Model

This study utilized Schwandt's OLSM (1997), viewed within the framework of structuration theory, to explore interactive dynamics that enact collective learning and knowledge creation in hospital leadership groups. Three conclusions emerged.

First, *in the analysis of the data, the OLSM provided a structure within which to manage data that needed to be viewed across the individual, group, and organizational levels.* The study of dynamic interactive processes generated a need to study the actions of individuals as they related to the larger collective. Based on the theory of action (Parsons & Shils, 1951), Schwandt's model challenges the boundary between the individual and the collective by focusing on actions and systems of action that generate learning and knowledge creation within a collective.

Second, *this research clarified the value of juxtaposing the OLSM with structuration theory.* The OLSM posits that learning and knowledge creation originate in acts of social relating (Schwandt et al., 2006) and are enacted in the dynamic interactive processes occurring within collectives. From within the framework of structuration theory, this study suggests that the reciprocal shaping of those dynamic interactive processes, and the social/relational structures of the collective generated within the communicative, normative, and power-relating modalities, enact the dynamic learning collective itself.

Structuration theory argues that social systems are enacted through the reciprocal shaping of action and structure (Giddens, 1984). It identifies three structuring modalities: signification (communicative), legitimation (normative), and domination (power relating) and asserts the knowledgeability of actors (Giddens, 1984). The OLSM identifies four

learning subsystems of action: environmental interface, within which new information is identified and projected out into the collective; action/reflection, within which information is transformed into valued knowledge that supports the collective in achieving its goals; dissemination and diffusion, within which valued information and knowledge are integrated into structures, roles, and processes; and memory and meaning, which generates local and historical sensemaking (Schwandt, 1997; Schwandt et al., 2006; Schwandt & Marquardt, 2000).

The structuration premise that actions and structures are reciprocally shaping and reshaping each other adds to the dynamic relationship between the media of exchange and the actions of the subsystems within the model (Giddens, 1984; Schwandt et al., 2006). Each of the learning subsystems produces an output that is needed by the function of the other subsystems (see Table 5-1).

Table 5-1
The Organizational Learning System Model, Its Exchange Media, and Structuration

Learning subsystem	**Output—medium of exchange**	**Structurating process *(mutual shaping of outputs and inputs by each other)***
Environmental interface	New information	Reflecting on; disseminating through the system; making sense of
Action/reflection	Goal reference knowledge	Transforming information into knowledge, based on fundamental values and norms and organized via structures, roles, and processes
Dissemination and diffusion	Structuring	Integrating structures, roles, and processes by moving valued information and knowledge through the system
Memory and meaning	Sensemaking	Assigning meaning and value to information, knowledge, and the structuring processes through language and symbols

Adapted from Schwandt et al., 2006.

As Schwandt et al. indicated, the complexity of "human interaction and the non-linear relationships between and among actions" (2006, p. 62) make it challenging to "understand the chaotic nature of the simultaneous interaction of the multiple sets of human actions" (p. 62). Nevertheless, structuration theory provides a small opening into this black box. Structuration theory provides a way to think about how learning actions identified within the OLSM are shaped by the social/relational structures of the collective, and how these structures are in turn shaped by the learning actions. For example, within the collective, structures—be they turns of talk, the formality or informality of the group's interactions, or the concentration or distribution of power within the group—shape the dynamic interactions of the collective even as those interactions shape the collective structures, and within this process, learning and knowledge creation is enacted.

Third, *the OLSM model (1997, 2000) provided a way to describe the dynamic interactive processes enacting learning and knowledge creation in both hospital leadership groups.* In the context of structuration, the dynamic interactive processes through which learning or knowledge is constituted are produced in the reciprocal shaping of actions and structures enacted between and among group members. Further, this reciprocal shaping and reshaping takes place on the landscape of language (Maturana & Varela, 1998; J. R. Taylor & Van Every, 2000), in the talk in interaction between and among leadership group members (Boden, 1994).

Dynamic interactive processes shaped the introduction and distribution of new information within each group. At Urban Hospital, for example, the formal structuring of leadership meetings meant that new information was typically delivered in the form of

assigned reports. In addition, the rigid boundaries between organizational functions, the lack of formal and informal collective interacting between and among members of the leadership group, and the concentration of organizational knowledge and decision-making in the CEO impeded the introduction of new information into the collective system. At Community Hospital, the informality of leadership meetings enabled new information to emerge spontaneously in member interaction. Further, the relaxed boundaries between nursing functions, the informal collective interacting between and among members of the leadership group, the wide distribution of organizational information among members, and collaborative decision-making promoted the circulation of new information through the system.

The emergence of goal reference knowledge was also shaped in the enacting of dynamic interactive processes within each group. At Urban Hospital, the formal structure and norms reflected in leadership group meetings did not invite collective reflecting, queries, challenges, debate, or conflict. At Community Hospital, knowledge creation was viewed as a collaborative, interactive process. The informal structure and norms applied to leadership group meetings demonstrated collective interacting in which members engaged in reflecting, querying, challenging, debating, and so forth.

The findings for the Urban Hospital leadership group suggested that the group, while engaged in both exploitative and exploration learning (March, 1991), emphasized exploitative learning, focusing on reformulations of standard operating procedures and questioning results that didn't align with expectations. Using the OLSM, this finding was predictable based on the leadership group's orientation to learning as an individual rather

than collective process, its linear communication patterns, and its concentration of information and decision-making in the CEO.

Implications for Research, Theory, and Practice

While a qualitative research study is not intended to produce generalizable results, there is a need to outline ways in which this research study may contribute to the larger conversation about collective learning in hospital leadership groups. The outlining of questions and considerations for research, theory, and practice presented below follows from a basic question that reverberated throughout this study: *So what?*

Implications for Theory and Research

There has been a resurgence of interest in exploring patterns of work group interaction related to collective learning (Edmondson, 2002; Gibson, 2001; Jehn & Mannix, 2001). It has become apparent that the black box has been penetrated as researchers begin to access tools from other domains, such as conversation analysis, to investigate the interactive processes that shape an organization. The following implications for theory and research are focused on structuration theory as a framework for studying interactive processes in leadership groups and the application of the OLSM within a structuration-based study.

Implications for Structuration Theory as a Conceptual Framework

First, *from a theoretical perspective, the findings from this study support the use of structuration theory as a framework for exploring the interactive dynamics of learning and knowledge creation in leadership groups.* Using the structurating modalities of signification, legitimation, and domination to explore both a group's conceptualization of

itself and its interactive conversation in meetings has generated the description of interactions that enact learning and knowledge creation. The hope is that this study will invite other researchers to take a longer and deeper look at dynamic interactive processes. One of the limitations of this study is that it took place over a short period of time and confined itself to interviews and observations of formal meetings. Much could be gained from the development of a longitudinal, ethnographic study of leadership groups in which the interactions of members, studied in a variety of contexts, could be described over time.

Second, *findings from this research support and extend work on how group norms, particularly with respect to power relationships, shape learning outcomes (Edmondson, 1999).* Interactions such as experimenting, raising questions and queries, challenging group actions, and so forth were observed to take place in turns of talk in the leadership group in which power was often distributed, trust among members was high, and norms supported sophisticated levels of communication between members. The issue of psychological safety emerged as a finding in this study, suggesting that further research is needed to explore the communicative, normative, and power-relating modalities in which a psychologically safe environment is enacted in the mutual shaping of action and structure within the group.

Third, *the findings from this study indicate a need for further exploration of power relations in the shaping of collective learning structures and practices.* This study found that when the designated leader of the group was isolated because the structure enacted by the group (leader and members collectively) inhibited critical questioning, challenging, and a genuine exchange of information and knowledge, the learning capacity

for the leadership collective and the organization was constrained. Further, findings indicated that when power was more frequently distributed and the designated leader invited robust interaction, and members were actively engaged, the learning capacity of the leadership group was enhanced. This finding suggests that research focused on power relating in leadership groups needs to consider the reciprocal shaping taking place between and among all members of the group.

Additionally, the finding points to the need for further investigation of the dynamic interactive processes related to learning and knowledge creation when the positional leader intentionally determines that power should be distributed among group members. In the Community Hospital group, the CNO made it clear that she expected to be challenged and that she expected group members to challenge each other. She further explicitly stated that conflict was acceptable and that group members were responsible for working through conflicts with each other. In the Urban Hospital group, the CEO explicitly stated that he did not manage challenge or disagreement well. He, as well as the members of the group, stated that he was uncomfortable with conflict and that he saw his role as being the arbiter of conflicts between his group members. The boundaries of leader knowledgeability are also apparent here. While both leaders were intentional in their distribution of power or lack thereof, the boundaries of knowledgeability (the unconscious on the one hand, and the unintended consequences on the other) shaped their ongoing interactive practice.

Fourth, *research is needed to develop concrete approaches to facilitating critical reflection in leadership groups that enables the group to examine and develop awareness of the relationship between its structure (communicative, normative, and power relating)*

and its talk in interaction. It would be useful to conduct this study again with a leadership group in which it was normative for members to reflect together about how its interactions were shaping and being shaped by group norms, by the power distinctions in the group, or by the talk between and among members. The idea that strengthening collective knowledgeability (Giddens, 1984) might lead to shaping contexts and actions in which the potential for collective learning and knowledge creation could be more frequently actualized needs further exploration.

Implications for the Organizational Learning Systems Model

The OLSM (Schwandt, 1997) was a useful heuristic device for exploring what is one of the most critical implications for any study: transferring the learning outcomes of research into the domain of practice. This study has produced a heightened awareness that the vast expanse of knowledge about collective learning and leadership accrued over the past 20 years, mostly in the academic domain, is not reaching the domain of practice. Despite alarms sounded by numerous researchers (Doh, 2009; Ghoshal, 2005; Rynes, Bartunek, & Daft, 2001), in the world of hospital leadership practice, leadership continues to be thought of as a hierarchical role within which the balance of organizational power resides. Organizational learning remains a confusing idea (Schwandt & Marquardt, 2000). There appears to be little understanding of concepts such as distributed leadership and collaborative process. The language of organizational learning from theories to models to ideas such as exploration and exploitation is not part of the conversation of most practitioners. Yet these ideas have been part of the academic conversation for many years.

The knowledge being developed through research is available through books, articles, online resources, and so forth. Many universities have set up conferences and forums, inviting practitioners to listen to researchers and participate in roundtable discussions from which new information is distributed and opportunities for knowledge creation abound. In addition, recent research suggests that pairing researchers and practitioners in the workplace to conceive of, implement, analyze, and communicate about research that holds value to both may be a path toward narrowing this deeply troubling gap (Amabile et al., 2001; Mohrman, Gibson, & Morhman, 2001).

Schwandt's learning model provides another way to think about this gap by conceptualizing the research and practice communities as two learning systems that need to communicate with each other. The current state of hospital organizations suggests there are constraints at every intersection of these two systems. Research generated from Schwandt's model could support an understanding about how information from the research system is accessed, filtered, and emitted into the rest of the practice learning system. Conversely, how is information from the practice system accessed, filtered, and emitted into the research learning system? The dearth of structures that promote interaction between members of each learning system suggests that even when information does enter one system or the other, the needed collective interacting to transform the information into goal reference knowledge is missing. Further, research using this model to explore how the structuring and sensemaking subsystems shape the interaction between these two learning systems could provide further insight into the enactment of learning and knowledge creation between these two domains.

In addition to the above, it is notable that the gender composition of the two hospital leadership groups was distinct. The Community Hospital leadership group comprised only women; the leadership group at Urban Hospital comprised three men and four women. While this study did not focus on gender as a structure to consider with respect to the talk in interaction, gender may be an avenue to consider in further studies of group interaction and leadership group learning. Much of the recent research generated from the field of conversation analysis has examined gender as constituted and reconstituted in language (Dow & Wood, 2006). Further, research developed in the field of linguistics has suggested that men and women are shaped by and shape differing interactive norms, with men competing for status and women competing for connection (Tannen, 1994). Building collaborative research between these disciplines in order to describe how the "performativity" of gender (Bell & Blaeuer, 2006) shapes the dynamic interactions related to learning and knowledge creation would add a useful dimension to this research.

Implications for Practice

This research has argued for practitioners to elevate the importance of learning about the mutual shaping of action and structure in the enactment of collective process. The findings from this study may benefit the practice of hospital leadership from the perspective of three distinct domains. The following discussion summarizes (a) recommendations for the development of curricula in healthcare administration and business school leadership development programs; (b) recommendations for ongoing development for those who occupy hospital leadership roles; and (c) recommendations for those who provide ongoing consultation and support to hospital leaders.

Implications for Healthcare Administration and Business School Curricula

First, this research suggests a need for organizational leaders to learn and build knowledge in the domain of group facilitation and team building. Findings from this study could benefit those responsible for graduate programs in business and healthcare administration to enlarge their view of leadership competency as a set of skills or capabilities to be learned. They might also consider the idea of "competence generation [as a] process of developing people's capacity to enact . . . 'useful practices'" (Orlikowski, 2002, p. 253) that are specific to a particular context situated in time and space. In this case, it would mean building a curriculum that promotes the valuing of interactional competence and intentionally seeks to increase a learner's appreciation for the criticality of developing sophisticated communication capability. As long as leaders continue to view the building of capacity for effective emotional and social interaction as soft skill-building, development in these areas will continue to be seen as nonessential.

> If the intellectual structure, architecture, and reasoning processes required for leading learning are the same as those embedded in the managerial disciplines, then integration [of leadership and learning] will be much easier. If true, we will stop labeling the competencies related to human beings as 'soft' and those related to managerial disciplines as 'hard.' Indeed, such a distinction may well be based on soft reasoning. (Argyris, 1993, p. 7)

The need for leaders to be able to access a wide range of interaction skills argues against reducing effective interactions to a set of steps that if followed would produce successful interactions. Rather, since dynamic interactive process emerges in a situated context, "the focus then is on understanding the conditions (e.g., human, social, structural, financial, technological, infrastructural) under which skillful performance is more and less likely to be enacted" (Orlikowski, 2002, p. 270). The findings from both leadership groups emphasized that each turn of talk produces the next action. Developing

knowledge in the domains cited above enlarges the possibilities available as one engages in conscious interrelating.

A second implication of the findings emphasizes the need to support leaders in developing advanced skills in the management and facilitation of group process. A sophisticated body of knowledge about building productive teams and facilitating effective group process has been developed in both the academic and practice domains. Those who teach about organizational leadership could design a variety of learning experiences that provide prospective leaders with opportunities to observe high-performing leadership groups that have figured out how to intentionally balance performance and learning objectives. In addition, learners could be offered experiential opportunities to practice and receive feedback on their developing communication and facilitation skills. Learning structures need to offer developmental opportunities for both individual leaders and collectivities of leaders to achieve personal and collective mastery related to leadership group interaction.

A third implication of the findings indicates a need to work with leaders to translate research on relational and distributed models of leadership into the domain of practice. Findings from this study suggest that members of both leadership groups perceived that the individual who occupied the designated leadership role within the organizational hierarchy (i.e., CEO or CNO) significantly shaped the context for group interaction. This perspective implied that the research focused on relational and distributed models of leadership has not yet become embedded in popular conceptualizations of organizational leadership. So long as those charged with the responsibility for the viability and progress of hospitals view leadership as embodied in

individuals in defined roles, opportunities for accessing and leveraging the collective knowledge and experience of group members will be constrained.

Implications for Hospital Leaders

The most important finding from this study directed to hospital leaders indicates the need for leaders to engage in reflective practice, examining their frameworks and critically questioning the fundamental assumptions that guide the focus of their work. "The lack of a broad repertoire of flexible frameworks that encompass all types of instrumental, communicative, and emancipatory knowledge (Habermas, 1971) creates contradictions and tensions that force the manager to retreat from complex and ambiguous issues" (Schwandt, 2005, p. 185). The need for reflective learning is critical, and its absence is worrisome. One of the hospital leaders participating in this study shared his frustration that his work never allowed him "time to think." The complexity of the work and the lives that are shaped by hospital leadership group decisions depend on the best thinking of those privileged to occupy leadership roles. The landscape of healthcare cannot afford for leaders to believe they have no time to think. The implications of talking *without thinking* are too significant when considering that this study suggested that a single turn of talk among members in a group context can be magnified to shape new questions and queries, understandings, or judgments and decisions.

Expanding this idea further, this study showed that there is a reciprocal relationship between the talk in interaction between and among members of a leadership group and the learning and knowledge creation that is enacted in the group. This finding confirms Schwandt et al.'s assertion that "if managers are to make sense in their

environments and to 'manage knowledge,' they must understand the dynamics of these relationships" (2006, p. 68). It further implies that there is a need for leadership group members to appreciate the potential of their interactive practices to shape the structure of the group and to appreciate that the structure of their group is shaping their actions. In addition, the findings suggest a need for leaders to develop and strengthen the foundational competencies of interpersonal communication, group participation, and group facilitation, thereby enhancing the learning and knowledge creation capacity of the group. Talk in interaction is generative, meaning that what leaders say, when they say it, and how they say it shapes the next actions in a conversation. Leadership groups, in their talk in interaction, enact their collective.

Additionally, understanding that each turn of talk has implications for the next turn indicates a need for leaders to become intentional about group interaction. Organizations do not exist separately from their members. Members constitute their collectives in every act of talk (Boden, 1994). Therefore, choices to participate or disengage, to listen with an intention to understand or to listen in order to advance one's agenda, to include or exclude others, to challenge the leader or to remain silent, have implications for the becoming of the collective. Increasing knowledge about the dynamics of interaction will prepare leaders to consciously and intentionally direct their talk in interaction.

Finally, leaders need to be especially aware of the implications of power imbalances that result from hierarchical role distinctions. Given present hospital leadership structures, it is important for the designated group leader to initiate the development of a safe environment in which group members can engage in discussion

and debate, questioning, querying, challenging, arguing, and so forth for the sake of building the knowledge necessary to the viability and growth of the organization.

Implications for Organizational Development Consultants

The findings from this study indicate that the structures and actions reciprocally shaping each other when members of a group interact are generated in the turns of talk between and among members of the group. While guiding leadership group members to an appreciation of this dynamic interactive process, organizational consultants can enhance the capacity of leadership groups to learn how to learn (Schwandt, 2005). Leadership groups often engage consultants when faced with challenges that produce confusion and uncertainty. Instead of arriving with answers or a set of best practices, consultants can support these groups in developing an awareness that learning means more than accessing information about what to do next; that it must include engaging in critical reflection on the assumptions underlying what appears confounding in the moment. Consultants can coach leadership groups to construct fundamental questions and to interact about the contradictions they perceive, thereby providing groups with opportunities to engage in dynamic interactive processes that support both exploitative and exploratory learning. In this way, consultants may contribute to capacity building with respect to enacting in a particular time and space "'useful' rather than 'best practices' . . . thereby helping others develop the ability to enact—in a variety of contexts and conditions—the knowing in practice" (Orlikowski, 2002, p. 271).

Another implication of this study is that leadership groups would benefit from participating with skilled practitioners in facilitating groups in which the dynamics of collective interaction are apparent. Practitioners can use facilitation opportunities to

model processes that are inclusive, that demonstrate intentional and conscious interaction, and that create spaces in which members can challenge each other respectfully and productively.

Finally, consultants have a responsibility to continue their own learning and knowledge creation and become conduits for the distribution of new information about the dynamics of interactive practice, collective learning and knowledge creation, distributed or relational leadership, and so forth. As long as leaders and teachers of leaders continue to reinforce the notion that there are formulas with steps to follow that will lead to high-performing teams, leaders will continue to look for answers in the wrong direction. The leadership group members from Community Hospital understood that they needed to pay attention to their own interactive process. Conversely, the group from Urban Hospital appeared bewildered by their process, seemed to understand that they needed knowledge they didn't have, enlisted outside support, and initiated a leadership retreat several months prior to the commencement of this study. But, as most members reported, there were no sustainable results from that process.

Organizational consultants would do a great service to leadership groups by helping them see first the interactive patterns they are enacting and then the relationship between their group dynamics and the larger contexts of the hospital, the healthcare system, and the culture within which they are interacting. Knowledge needed to support efforts to sustain or change patterns of interaction needs to include "the organizational, institutional, and cultural contexts that enable and constrain them" (Perlow, Gittell, & Katz, 2004, p. 534).

Conclusion

What we say matters. Turns of talk matter. The United States stands at the edge of an attempt to implement vast changes in the healthcare system. The need for hospital leadership groups to talk their "organizations, and whole institutions into action" (Boden, 1994) that reflects the learning and knowledge creation of the collective at its best has perhaps never been greater. If there is a message in this study for hospital leadership groups and for those who prepare healthcare professionals to enter into the practice of leadership, it is the call to engage, pay attention, become intentional, and recognize that what you say collectively is shaping your collective, your hospital, and the institution of healthcare delivery.

> The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise with the occasion. As our case is new, so we must think anew and act anew. —Abraham Lincoln

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APPENDIX A:

GLOSSARY OF TERMS FOR LEARNING ACTIONS

1. Acknowledging	A turn of talk that indicates recognition of a previous turn of talk
2. Agreeing	A turn of talk that indicates concurrence with the previous turn of talk
3. Arguing	A turn of talk that objects to a previously stated position
4. Asking	A turn of talk that intends to obtain information
5. Asserting	A turn of talk that states a belief, a fact, a perspective, and so forth
6. Bridging	A turn of talk that connects two unlinked ideas from previous turns of talk
7. Challenging	A turn of talk that tests a previous turn of talk
8. Checking	A turn of talk that verifies a previous turn of talk
9. Cheering	A turn of talk that exclaims approval for a previous turn of talk
10. Clarifying	A turn of talk that makes a previous turn of talk more understandable
11. Collective reflecting	Thoughtful consideration being generated toward a particular focus by members of a group; may be manifested verbally or nonverbally
12. Confirming	A turn of talk that strengthens or validates a previous turn of talk
13. Considering	A turn of talk that indicates thinking about a previous turn of talk
14. Constructing process	A turn of talk that enacts structures and actions that move the business at hand along
15. Contributing	A turn of talk that adds to one or more previous turns of talk
16. Deciding	A turn of talk that determines a resolution to a previous question
17. Defending	A turn of talk intending to justify a position or point of view
18. Describing	A turn of talk that specifies (something)
19. Disagreeing	A turn of talk that expresses a different opinion from a previous turn of talk
20. Dramatizing	A turn of talk that presents a point with emphasis
21. Elaborating	A turn of talk that enlarges and amplifies a previous turn of talk
22. Empathizing	A turn of talk that indicates an understanding of the cognitive and emotional dimensions of a previous turn of talk
23. Explaining	A turn of talk that makes something clear
24. Extending	A turn of talk that lengthens a previous turn of talk
25. Focusing	A turn of talk that sharpens attention on something
26. Framing the question	A turn of talk that formulates a question in context
27. Hearing	A turn of talk that indicates listening and perceiving

28. Hypothesizing	A turn of talk that proposes an idea or an explanation
29. Identifying	A turn of talk that constructs an association in order to make something known
30. Illustrating	A turn of talk that presents an example in order to clarify a point
31. Implying	A turn of talk that suggests or infers
32. Informing	A turn of talk that gives facts
33. Interpreting	A turn of talk that explains the meaning of a previous turn of talk
34. Joining	A turn of talk that signals alignment with a previous turn of talk
35. Joking	A turn of talk intended to entertain or amuse
36. Judging	A turn of talk that expresses a reasoned opinion
37. Justifying	A turn of talk that states the reason for something
38. Naming	A turn of talk that attaches an identifier to something
39. Predicting	A turn of talk that indicates what is expected
40. Preferring	A turn of talk that chooses or favors
41. Problem-solving	A turn of talk that participates in responding to a challenge or problem
42. Punctuating	A turn of talk that emphasizes a previous turn of talk
43. Qualifying	A turn of talk that establishes limits and boundaries around an idea
44. Querying	A turn of talk that breaks the framework of a sequence
45. Questioning	A turn of talk that asks for information
46. Ratifying	A turn of talk that indicates consent
47. Reacting	A turn of talk that indicates a response driven by emotion
48. Reasoning	A turn of talk that indicates a response driven by explanation
49. Recalling	A turn of talk that expresses a memory
50. Reflecting	A turn of talk that expresses a deliberate thought
51. Releasing	A turn of talk that expels tension or emotion
52. Repairing	A turn of talk that corrects a previous turn of talk
53. Repeating	A turn of talk that restates a previous turn of talk
54. Reporting	A turn of talk that delivers information
55. Resonating	A turn of talk that indicates synchronicity with a previous turn of talk
56. Responding	A turn of talk that answers a previous turn of talk
57. Retrospective reflecting	A turn of talk that expresses a deliberate thought about the non-local past
58. Self-disclosing	A turn of talk that makes known information about oneself
59. Speaking out	A turn of talk that states a thought when it might appear to be easier or more prudent to remain silent
60. Storytelling	A turn of talk that narrates an account of something that happened
61. Suggesting	A turn of talk that offers an idea
62. Supporting	A turn of talk that indicates a desire to demonstrate agreement with a previous turn of talk

63. Topic changing	A turn of talk that switches the focus from the previous turn of talk
64. Translating	A turn of talk that converts one frame of meaning into another frame of meaning
65. Validating	A turn of talk that indicates approval for an idea or suggestion from a previous turn of talk

APPENDIX B:

LETTER OF INTRODUCTION

Kate Davis, Doctoral Student
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May 8, 2006

Dear Hospital Administrator,

You have been referred to me by _____, who has identified your leadership group as one of the best examples of a leadership group in the region with respect to learning and knowledge development. I am writing to invite you to participate in a dissertation study focused on understanding how hospital leadership groups, in the face of multiple competing demands, can enable the development of new knowledge and learning.

I am a student working on my dissertation for partial fulfillment of my Ed.D. in Education and Human Development at George Washington University. By participating in this study, you will be making an important contribution to organizational sciences and, in particular, to our knowledge about learning and healthcare leadership. Information about you, your leadership group, and your hospital will be kept confidential with respect to names and descriptors. I appreciate your time in considering your participation in this study. The following are salient details:

What the study is about . . .

The study seeks to understand how hospital leadership groups interact so as to enable learning and knowledge development to emerge in the group.

How will you and your hospital leadership group benefit from participating in my study . . .

I believe that this study will significantly contribute to our knowledge about how high-performing leadership groups interact so that learning and new knowledge can emerge. You and your group will be co-researchers in a project that has not previously been studied. You will have access to **all** research findings that may be presented to you and your team at the conclusion of the study. If the research is publishable, you will have the option of participating in the publication process. Because I have access to some of the finest scholars in the country on organizational learning and leadership, you will have the benefit of their guidance on this project.

What is involved in participating . . .

Participation involves allowing me to view the interaction that occurs within and among members of the leadership group. In order to do this, I will visit your hospital between 1 and 2 days per week for a period of 2 to 4 months. My visits will involve observation of leadership group meetings, interviews with members of the leadership group, review of organizational documents, and other processes agreed upon by you and your leadership group. Most leadership group meetings will be audio recorded, but not transcribed. The recording will provide back-up support for my notes and observations. All data will be kept in a locked file in the office at my home. On occasion I may request permission to transcribe a portion of a meeting or an interaction for the purpose of developing a deeper analysis of a process that I view to be critical to the study. Selected recordings, my notes, and transcripts containing pseudonyms will be kept for an indeterminate time to allow for further study.

As I develop an analysis of the data, I will be checking in with you and your team to determine that I am forming a valid picture of the leadership group process.

Where and when is the research targeted to take place?

The research will take place on site at your hospital and will begin at a mutually agreed upon date. I have the flexibility of accommodating the organizational flow of your schedule.

I will study your hospital by visiting departments and familiarizing myself with your campus. I will study the leadership group through interviews and observation of your formal and informal interactions. My goal is to become as nonintrusive as possible. My hope is that regular attendance at leadership group meetings will soon make my presence a nonissue.

Additional information and next step . . .

Enclosed is a copy of the Informed Consent Form. IRB procedures require that participants be asked to sign it prior to data collection. Your personal information will be kept confidential. A pseudonym will be the only reference to your data.

At the conclusion of the study, if you wish, I will be happy to provide you with a copy of my final dissertation.

If you and your leadership group are interested in participating in this study, I will work with your assistant to schedule time to meet with you to make available any other information you may need to answer questions, and to provide you with copies of the Informed Consent Form. I will welcome your interest in participating in this study. You and your leadership group will be making an important contribution to the organizational sciences by allowing this examination of constructive group process.

Many thanks in anticipation,

Kate Davis

Disclosure statement: I work for a private, not-for-profit hospital. This research endeavor is not in any way related to my employer.

APPENDIX C:

INFORMATION OUTLINE OF THE STUDY

Introduction
You are invited to take part in a research study entitled *The Enactment of Learning and Knowledge Creation: A Study of Hospital Leadership Group Interaction*. This outline provides information about participating in this research study.

Purpose of This Study
The purpose of this study is to understand how hospital leadership groups interact so as to enable learning and knowledge creation to emerge in the group. This study is interested in the processes and structures generated by a hospital leadership that make learning and knowledge creation possible.

Procedures
Two hospital leadership groups will be invited to participate in a 2- to 4-month case study. The research will take place on site at the participants' hospital. The leadership groups will be directly observed during both formal and informal meetings, some sessions will be recorded (audio), group members will be interviewed, and organizational documents deemed important to this study by both the researcher and participants will be examined. It is anticipated that group member interviews will take approximately 1 hour and will occur three times during the study. There will be two group interviews conducted with the leadership group, one near the beginning of the study and one near the conclusion. These interviews will be approximately 1 hour in length. The names of the participants and the hospital will remain confidential in the reporting of this research.

Data will be analyzed as it is collected. Summary reports of the analysis will be provided to the leadership group upon request. The group will be requested to review the transcripts, make any necessary edits, and return the document within 1 week of receiving it. If no response is given after a 2-week timeframe, the researcher will assume the participant is satisfied with the original statements. A final meeting will occur upon completion of the data analysis, at which the researcher will present all findings to the leadership group. That session, anticipated to be approximately 2 hours, will be a working session where findings will be discussed, validated, edited, and critiqued by the leadership group.

Benefits Expected to be Gained by This Study
There are practical benefits expected to be generated as a result of this research. The combined findings from this research may identify leadership group practices that create a platform for learning and knowledge creation within the group. Leadership groups participating in this study will have an opportunity to reflect on the specific linkages between group interactions and the development of learning and knowledge creation.

Costs
The participant does not pay anything to participate in this study. Neither does the participant receive compensation for participation.

Right to Withdraw from the Study
Participation is voluntary and the participant can withdraw consent at any time. If a participant chooses to withdraw from this research, all records collected and attributable to the participant will be destroyed from the research database.

Confidentiality
Personal information will be confidential and will not be identified (i.e., name and contact information). George Washington University faculty will have access to the data. An external auditor will review the transcripts to ensure proper reporting of the data and findings. Even in this situation, all personal identifying information will be removed. Pseudonyms will serve as an identifier.

All documents and recordings will be stored in a locked filing cabinet at the researcher's home. Audio recordings will be destroyed at the completion of the dissertation. Transcripts will be kept on file as supporting data for further research for a period of 5 years after completion of the dissertation.

Questions
If you have any questions about this study or participating in this study, you may contact the researcher, Kate Davis, at 240-475-8312.

Investigator Statement
I certify that I have made myself available to explain to the participant the purpose, the procedures, and the potential benefits associated with participation in this research study. Any questions raised have been answered to the participant's satisfaction.

Kathryn Bremner Davis
Investigator (Print Name)

_____
Signature

_____
Date