

Distributed Leadership: Toward a Theory of School Leadership Practice

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Abstract

School level conditions, and school leadership in particular, are key in efforts to change instruction. While new organizational structures and new leadership roles matter to instructional innovation, what seems most critical are the ways in which leaders enact their roles. Yet, the practice of school leadership has received scant attention in the literature. Building on activity theory and theories of distributed cognition, this paper develops a distributed perspective on school leadership as a frame for studying leadership practice. The goal is to make the "black box" of leadership practice more transparent by revealing and analyzing how leaders think and practice. The distributed perspective goes beyond considering a division of labor for leadership functions, to argue that the thinking and practice of leadership is stretched over school leaders and the material and symbolic artifacts in the environment. The authors treat the situation not simply as an influence on practice but as an integral and constituting component of practice.

Introduction

Leadership is thought critical to innovation in schools. We know that schools matter when it comes to improving student learning and we know a considerable amount about the organizational structures, leadership roles, and conditions of schools that contribute to innovation (Hallinger & Heck 1996; Newman & Wehlage 1995; Purkey & Smith 1983; Sergiovanni 1996; Sheppard 1996). We know, for example, that schools with shared visions and norms about instruction, norms of collaboration, and a sense of collective responsibility for students' academic success create incentives and opportunities for teachers to improve their practice (Bryk & Driscoll 1985; Newman & Wehlage, 1995). Moreover, we know that principal leadership is important in promoting these conditions (Lieberman et al. 1994; Seashore-Louis & Kruse 1995; Rosenholtz 1989). Even more, evidence suggests that principal leadership, as mediated through the development of these school level conditions and processes, has an effect on student learning (Hallinger & Heck 1996).

While it is generally acknowledged that where you find good schools you will find good leaders, it has been notoriously difficult to construct an account of school leadership, grounded in everyday practice, that goes beyond generic heuristics of suggested practice. We know relatively little about the *how* of school leadership; that is, knowledge of the ways in which school leaders develop and sustain those conditions and processes believed necessary for innovation. While there is an expansive literature about *what* school structures, programs, roles, and processes are necessary for instructional change, we know less about *how* these changes are undertaken or enacted by school leaders. A recent review of the literature identified many “blank spots” (i.e., shortcomings of the research) and “blind spots” (i.e., areas that have been overlooked because of theoretical and epistemological biases) in our understanding of leadership (Hallinger & Heck 1996a; 1996b; Heck & Hallinger 1999; see also Bossert, Dwyer, Rowan, & Lee 1982). These authors argue that, “an important *blank spot* concerns in-depth description of how principals and other school leaders create and sustain the in-school factors that foster successful schooling. Sustained, narrowly

focused inquiry of this type is necessary to fill this blank spot in the knowledge base” (Hallinger & Heck 1999). With respect to blind spots, they note that the focus in the literature on “documenting *if principals make a difference* reinforced the assumption that school leadership is synonymous with the principal” resulting in researchers ignoring for the most part other sources of leadership in schools. In-depth analysis of the practice of school leaders is essential, these authors contend, in order for the "black box" of leadership practice to be opened up (Heck & Hallinger 1999). Inattention to leadership practice or activity is also evident in scholarships on organizations in the business sector (Eccles & Nohria 1992; Heifetz 1994; Tucker 1981).

We agree and consider an account of the *how* of leadership, grounded in school leaders’ day-to-day practice, as essential to understanding leadership in schools.¹ In this view, leadership is understood “as a matter of actions and processes” rather than exclusively as a matter of structures, states, roles, and designs (Eccles and Nohria, 1992, p. 13). To study leadership activity, it is insufficient to generate thick descriptions based on observations of what school leaders do. We need to observe from within a conceptual framework if we are to understand the internal dynamics of leadership practice. Because of the inattention to leadership practice among scholars (Heck & Hallinger 1999; Eccles & Nohria 1992) frameworks for studying leadership activity are scarce and those that exist tend to focus chiefly on either individual agency or the role of macro structure in shaping what leaders do. Indeed, investigations of work practices in general require the development of new conceptual frameworks, “frameworks built out of concepts that speak directly to practice” (Pickering 1992, p.7). Hence, our chief goal in this paper is to develop a conceptual framework - a distributed perspective on leadership - for investigating leadership practice.

The distributed leadership perspective developed in this paper is designed to frame a program of research that will analyze leadership activity and generate evocative cases for practitioners to interpret and think about their on-going leadership practice. By identifying dimensions of leadership practice and articulating the relations among these dimensions, the distributed leadership framework can enable leaders to reflect on and analyze their practice as

distinct from offering simplistic prescriptions for that practice. A consideration of leadership practice thus offers a potentially powerful explanatory framework, providing insights into how school leaders act. Consider by way of example monitoring instruction, which scholarship informs us is important for the successful enactment of instructional innovation (Firestone 1989; Firestone & Corbett 1988; Peters & Waterman 1982). While documenting the importance of “monitoring” behaviors for successful innovation, this research tells us relatively little about the *how* of monitoring. Without a rich understanding of *how* leaders monitor, it is difficult to develop a perspective on leadership practice that can provide helpful information for school leaders in their practice. By framing an analysis of leadership practice and the development of rich cases of that practice, the distributed leadership perspective is a tool that can enable change in leadership activity. A conceptual framework for leadership practice is likely to yield more insight into the relations between leadership and innovation in schools than theories that focus exclusively on organizational structures and leadership roles because leadership practice is a more proximate cause of that innovation.

We begin with a brief retrospective on school leadership research, paying particular attention to some recent work that has attempted to document and describe leadership practice, that is, work that begins to address Heck and Hallinger’s *blank spot*. Next, we outline the theoretical underpinnings for our distributed leadership framework. Specifically, we use distributed cognition and activity theory, perspectives that have proven especially generative in understanding human action, as the theoretical foundations for framing a distributed conception of leadership practice. We use these literatures to re-approach the subject of school leadership and to re-interpret the relevant literatures. We then develop our distributed leadership perspective around four central ideas - leadership tasks and functions, task enactment, social distribution of task enactment, and situational distribution of task enactment. We argue that investigating leadership practice is essential to understanding leadership in organizations. However, such investigations have to be undertaken within a conceptual frame and we develop a distributed framework for such work. In developing a distributed perspective on leadership, we move beyond acknowledging leadership practice as an

organizational property in order to investigate how leadership might be conceptualized as a distributed practice, *stretched over*² the social and situational contexts of the school. Leadership is not simply a function of what a school principal, or indeed any other individual or group of leaders knows and does. Rather, it is about the activities engaged in by leaders, in interaction with others, in particular contexts around specific tasks. We conclude by considering what our distributed leadership perspective might entail for research on school leadership and school innovation.

SCHOOL LEADERSHIP: A RETROSPECTIVE

Our intent here is not to undertake a comprehensive review of scholarship on leadership but rather to briefly overview some major lines of work relevant to school leadership practice. While acknowledging the contribution of different lines of research to our understanding of leadership, we identify several challenges that we argue must be addressed in order to develop a conceptual framework for investigating school leadership practice.

The literature on leadership, regardless of tradition, has focused mostly on those in formal school leadership positions, chiefly on the chief executive officer or in the case of schools, the school principal. For example, the leaders' traits approach defines leadership chiefly as a function of individual personality, ability, traits and style – the focus on the venerable “great man” theories of leadership drawn from 18th and 19th century historians continues unabated (Burns 1978; Culbertson 1988). This approach has a long history and marked influence on leadership research, focusing on the identification of leaders' personality traits and in some cases relating these traits to leaders' effectiveness (Stodgill 1948, 1950, 1981; Yukl 1981). Traits such as self-confidence, sociability, adaptability, and cooperativeness, among others, were thought to enable leaders to inspire others and thus get others to follow; indeed, empirical work suggests that such leader traits increase the likelihood of effectiveness (Yukl 1994).

Responding in part to criticisms leveled at the leaders' traits tradition for its silence about what leaders do, researchers began to investigate leadership as a set of behaviors (Hemphill & Coons 1950; Kunz & Hoy 1976; Mouton & Blake 1984). Research which documented the behaviors of “successful” leaders, generated taxonomies of behaviors including “monitoring,”

"consulting," and "delegating" (Hallinger & Hausman 1987; Hemphill & Coons 1950; Peterson 1978; Yukl, Wall & Lespinger 1990). Some work in this tradition identified broad styles of behavior, including autocratic, democratic, and laissez-faire leaders (Lewin et al. 1939; White and Lippitt 1960), employee-oriented and directive (Mouton & Blake 1984), task-oriented and relationship-oriented behaviors (Likert 1967), at times showing a relationship between these behaviors and effectiveness.

While providing valuable insight, this focus on positional leaders in these lines of research is problematic because other research underscores the need to move beyond those at the top of organizations in order to understand leadership (Barnard 1968; Heenan & Bennis 1999; Katz & Kahn 1966; Lipman-Blumen 1996). Critiquing the solo decision-maker model, scholars have argued for attention to the shifting coalitions of decision makers in organizations in which preferences and coalition membership is neither stable nor unified (Cyert & March 1963; March 1981; March & Olsen, 1976). Still other research on schools suggests that leadership is not the purview of the school principal as teacher leaders and other professionals can also play important roles in leading instructional innovation (Smylie and Denny 1990; Heller & Firestone 1995). If leadership is an organizational quality (Ogawa & Bossert 1995; Pitner 1986; Pounder et al. 1995), then, investigations of leadership practice that focus exclusively on the work of individual positional leaders are unlikely to generate comprehensive understandings of the practice of school leadership. Indeed, in schools, teacher leaders often assume leadership roles from a perspective that is distinct from that of positional leaders, and the character and structure of these interactions are vital to understanding leadership practice (Leithwood et al. 1997; Urbanski & Nickoulaou 1997).

Seeking to address the inattention to context or situation, another line of scholarship on leadership, contingency theory, focused on relations between the situation of leaders' work and their actions, goals, and behaviors, (Fiedler 1970, 1973; Hersey & Blanchard 1977). Contingency theory assumes that there is no one best approach to organizing, that organizational structure matters when it comes to organizational performance; and that the most effective method of

organizing depends on the organizations environment. (Galbraith 1973; Lawrence & Lorch 1967; Williamson 1985; Scott 1992). While some researchers concentrated on situational aspects such as relations between leaders and followers and the extent to which the leadership task was structured (Fielder 1970), others focused chiefly on followers' readiness to achieve the leader's goal (Hersey & Blanchard 1980). Researchers found that effective leaders drew on a repertoire of styles and that particular styles were dependent on both the leadership task and the context (Jago 1982; Stodgill 1974; Hersey & Blanchard 1974). For example, a task-oriented style is more effective when followers have limited experience and competence (i.e., "immature" followers), a blend of task and relationship-oriented styles work best with more mature groups, and a delegating-style of leadership appears most effective when working with very mature groups (Hersey & Blanchard 1974, 1980). Recent work on school leadership defines taxonomies of styles including "closed" (authoritarian, inaccessible, inflexible, non-supportive), "control-oriented" (manipulative, self-serving, focused on eliciting teacher compliance), and "open" (facilitative, democratic and accessible) (Blasé 1995).

Leaders' thinking about their work was largely ignored in behavioral studies of leadership with the scholarship focusing attention on documenting macro or micro leadership behaviors or styles. The cognitive tradition of research on decision-making in organizations focused on leaders' and followers' thinking about their situation and work and relations between these cognitive processes and their behavior (Green & Mitchell, 1979; Simon, 1976; Lord, 1976; Pfeffer, 1977; Weick, 1979; 1995). Recent work in this tradition investigates how school leaders use mental representations to understand and order their repertoire of responses to experience (Bolman & Deal 1991; Gardner 1995; Hallinger et al. 1993; Prestine 1995). Comparing the problem solving strategies of "expert" and "typical" principals (as identified by school boards, administrators, and interviews with subjects), researchers have shown that "experts," when compared to "typical" principals, are better able to identify the problem situation and to detect features of the problem that are similar to past problems (Leithwood & Steinbach 1990; Leithwood & Steinbach 1993; Leithwood & Steinbach 1995). Still, by focusing on the thinking of individual leaders this work continues the tradition of seeing leadership chiefly as a function of individual personality, ability,

cognition, and style. If school leadership involves a range of administrators and teachers in a given school, this focus has limitations. Another caution leveled at the cognitive research on leadership is that by concentrating on administrators' intentions, values, and beliefs, cognitive approaches run the risk of ignoring organizational, cultural, and political factors that also influence what school leaders do (Cuban 1993).

In contrast to the traditional cognitive perspective, Institutional theory attempts to situate individual sense-making in institutional sectors, challenging “models of social and organizational action in which relatively autonomous actors are seen as operating with unbounded rationality” (Rowan and Miskel 1999, p. 359). From an institutional perspective, social agents' thinking and action is situated in institutional sectors that provide norms, rules, and definitions of the environment, both constraining and enabling action (DiMaggio & Powell, 1991; Scott & Meyer, 1991). These tacit schemata define appropriate structures and give meaning and order to action in institutional sectors (Scott, 1995). In this scheme, leadership is about preserving institutional legitimacy in order to maintain public support for the institution. From this perspective, leadership, and leaders' cognition, cannot be understood apart from the contexts in which they are embedded. This perspective provides insight into the implications of structure for leaders' cognition and action, suggesting that cognition itself can be constrained by institutional context. Although not inherent to the approach, institutional theorists have tended to over-play aggregation and determinism (DiMaggio 1988), curtailing the frames usefulness for investigating leadership practice. Focusing on populations of organizations – institutional sectors – institutional theory has stressed the emergence of dominant organizational forms rather than particular leadership practices or activities that may be particular to individual organizations (Whittington 1991). Further, the overemphasis on the role of institutional schemata tends to smother human agency. As a result, institutional theory runs the risk of being overly deterministic by not attending to how social actors make sense of, and shape, their environments (Weick 1995, Giddens 1994). To enhance its relevance to scholarship in educational leadership, institutional theory needs to more closely address issues of school learning, educational practice, and institutional change (Rowan and Miskel 1999).

Informed by previous scholarship, we argue that in order to understand leadership practice, leaders' thinking and behavior as well as their situation need to be considered together, in an integrated framework, for a thoroughgoing consideration of leadership practice. We argue that understanding the *what* of leadership is essential, but that without a rich understanding of *how* leaders go about their work, and *why* leaders do and think what they do, it is difficult to help other school leaders think about and revise their practice. Further, from a research perspective, we contend that attention to the patterns of *how* leadership practice is undertaken by multiple leaders in diverse contexts will establish a cogent framework for a more careful consideration of the *why* of school leadership. Building on recent work in distributed and situated cognition and activity theory, we argue that leaders' practice (both thinking and activity) is distributed across the situation of leadership; that is, it emerges through interaction with other people and the environment. Hence, to frame a study of leadership practice we propose an integrative conceptual model that explores the interaction of leaders' thinking, behavior, and their situation.

CONCEPTUAL UNDERPINNINGS

Distributed cognition and activity theory, the conceptual foundation for our distributed leadership perspective, have proven especially fruitful in understanding human activity in complex, emergent, and discretionary environments. We appropriate several concepts from this work. An emerging emphasis in psychology is recognizing how social context is an integral component, not just backdrop or container, for intelligent activity. The study of human cognition has undergone something of a revolution in the past few decades as scholars have focused on understanding the thinking process "*in situ*" rather than "*in vacuo*" (Rommetveit 1979). Recent investigations of human intelligence and cognition rooted in Heidegger's emphasis on the in-the-worldness of human experience aim to situate thinking in the context in which it occurs (Heidegger 1929; Lave & Wenger 1991; Cole & Engestrom 1993; Resnick 1991; Suchman 1987). It does not seem as satisfying or as relevant to talk about thinking as a g-factor independent of the context or action in which it is exercised, if simply because intelligence is not encountered apart from the occasions in which it is displayed. In this view, investigating purposeful activity in its "natural habitat" is

essential for the study of human cognition (Hutchins 1995b; Pea 1993; Leont'ev 1981). An individual's cognition cannot be understood merely as a function of mental capacity because sense-making is enabled (and constrained) by the situation in which it takes place (Resnick 1991).

Because of the mutuality of the individual and the environment, human activity *distributed* in the interactive web of actors, artifacts, and situation is the appropriate unit of analysis for studying practice. Cognition is distributed *situationally* in the physical environment, that is, through the environments' material and cultural artifacts; cognition is also distributed *socially* through other people in collaborative efforts to complete complex tasks (Latour 1987; Pea 1996). Recent investigations in distributed cognition have focused on ways in which cognition is distributed across or "stretched over" material and cultural artifacts (Rogoff 1990). Artifacts include language, notational systems, tools of various sorts, and buildings (Gagliardi 1990). For example, Hutchins (1995a) documents how the task of landing a plane can be best understood within a framework that includes the manufactured tools and social context of the cockpit that situate a pilot's activity. These features of the environment are not, argues Hutchins, merely "aides" to the pilot's cognition, rather they are best understood as essential features of a composite which has the cockpit as the basic unit of analysis. Similarly, tools such as calculators enable students to complete computational tasks in ways difficult *sans* tool (Pea 1996). In these cases, cognitive activity is "stretched over" actors and artifacts (Lave 1988); that is, the desired unit of analysis for examining cognition in practice is to consider actors in situations working with artifacts, rather than actors abstracted from situations or artifacts.

Technological or material aspects of the situation are not the only relevant means of distribution. Language, number systems, theories of action, and interpretive schema provide "mediational means" that enable and transform intelligent social activity (Wertsch 1991; Vygotsky 1978; Leont'ev 1975; 1981; Rogoff et al. 1995; Brown & Duguid 1991). These material and cultural artifacts form identifiable aspects of the "sociocultural" context as products of particular social and cultural situations (Wertsch 1991; Vygotsky 1978). Actors develop common understandings and draw on cultural, social, and historical norms in order to think and act. Thus,

even when a particular cognitive task is undertaken by an individual apparently *in solo*, the individual relies on a variety of sociocultural artifacts such as computational methods and language that are social in origin (Wertsch 1991).

While much of the work in distributed cognition and activity theory emphasizes how context enables action, we recognize that it can also constrain it. Because human action cannot be fully understood outside of the context in which it occurs, our conceptual frame must address relations between structure and human agency. Structure refers to the various elements which individuals must contend with when forming action, from the tangible to the intangible, from things like classroom lay outs to worldviews and cultural dispositions. Human agency concerns the actions of individuals within the context of (and, in fact through) structure. Scholars have developed distinctly different perspectives on relations between agency and structure, from objective structural determinism where all “agency” is ultimately predicted by the structure in which it is embedded (Althusser 1971), to phenomenology which emphasizes the agentic, subjective, social construction of reality by agents (Berger & Luckmann 1967). While these approaches view structure and agency as a dualism, we conceptualize structure as a duality. Following Giddens (1979; 1894), we view structure as both the medium and outcome of action (agency). Structure constitutes agency, providing the rules and resources upon which it is based; however, structure is also created, reproduced, and potentially transformed by the actions of human agents. The structural properties that enable human activity exist only as they are “instantiated in activity” or remembered as rules of conduct or “rights to resources” (Whittington 1992, p. 696).

A distributed perspective on human activity presses us to move beyond individual activity to consider how the material, cultural, and social situation enables, informs and constrains human activity. In this view, activity is a product of what the actor knows, believes, and does in and through particular social, cultural, and material contexts. Taking a distributed and situated perspective does not mean that the individual is somehow irrelevant in an investigation of human cognition and activity. What the individual thinks and knows is still relevant (Salomon 1996). In adopting a “*person-plus*” perspective on human activity we acknowledge that individual cognition is

distributed in the material and social situation but also that some intelligent activity may be distributed more than others (Perkins 1996).

LEADERSHIP: A DISTRIBUTED PERSPECTIVE

In keeping with the theoretical underpinnings for this work - distributed cognition and activity theory –our perspective on school leadership practice focuses on leaders’ thinking and action *in situ*. For us the appropriate unit of analysis is not leaders or what they do but leadership activity. We argue that leadership activity is constituted – defined or constructed - in the interaction of leaders, followers, and their situation in the execution of particular leadership tasks (see Figure 1). As illustrated in figure 1, in this view leadership activity involves three essential constituting elements - leaders, followers, and situation. It does not reside in any one of these elements and each is a prerequisite for leadership activity. Our distributed perspective shifts the unit of analysis from the individual actor or group of actors to the web of leaders, followers, and situation that give activity its form. We explore each of these elements separately below, however, the reader should understand that we view leadership practice as constituted in the interaction of all three. Rather than seeing leadership practice as *solely* a function of an individual’s ability, skill, charisma, and cognition, we argue that it is best understood as practice distributed over leaders, followers, and their situation (see also Connolly, 2000; Elmore, 2000; Gronn, 1999; 2000). Mindful human action is distributed between individuals and their situation (e.g., tools and artifacts of various sorts) (Salamon & Perkins, 1998).

[Insert figure 1 about here]

Attending to situation as something more than a backdrop or container for leaders’ practice, we consider sociocultural context as a constitutive element of leadership practice, an integral defining element of that activity. Our distributed leadership perspective then is premised on two assumptions. First, school leadership is best understood through considering leadership *tasks*. Second, leadership practice is distributed over leaders, followers and the school’s situation or context. Although the distributed perspective we develop here is applicable to leadership in general,

we use examples of leadership practice for instructional innovation in schools to illuminate our argument.

We begin our discussion of this framework with a consideration of the tasks around which school leaders organize their practice. We consider both macro functions as well as the micro tasks that are essential for the successful execution of these functions. Turning our attention to task enactment, we next consider the social and situational distribution of leadership practice, expanding cognitive accounts of leadership by emphasizing how the social and situational context enables and constrains leaders' practice.

We define school leadership as the identification, acquisition, allocation, coordination, and use of the social, material and cultural resources necessary to establish the conditions for the possibility of teaching and learning. Our definition is similar to a "transformational" perspective on leadership (Burns 1978), defining it as the "ability to empower others" with the purpose of bringing about a "major change in form, nature, and function of some phenomenon" (Leithwood, Begley, & Cousins 1994; Bennis & Nanus 1985). Leadership involves mobilizing school personnel and clients to notice, face, and take-on the task of changing instruction as well as harnessing and mobilizing the resources needed to support this process. Specifically, we are concerned with leadership as it relates to the transformation of teaching and learning.

An issue here concerns the relationship between leadership and management. While "the essence of organizational *leadership* [is] the influential increment over and above mechanical compliance with routine directions of the organization" (Katz and Kahn 1966, cited in Bass 1990, p. 14), *management* involves "maintaining efficiently and effectively current organizational arrangements" (Cuban 1988; Burns 1978). Researchers have noted how the "managerial imperative" often dominates school leaders' work while instructional activities receive limited attention (Cuban 1988; Peterson 1978). Focusing on leadership in general runs the risk of overlooking how much of leaders' work involves managing the status quo. And managerial tasks, which are designed to produce stability, may differ substantially from leadership tasks designed to promote change (Firestone 1996). Yet, what leaders do in the managerial and political realms,

though often not directly and explicitly connected to changing some aspect of school life, may be an essential component of leadership in general and leadership for instruction in particular (Leithwood 1992, Lee, 1987). Indeed, efforts to change and efforts to preserve may be blended in the practice of leaders as tasks serve multiple agendas and functions. For example, maintaining teacher schedule arrangements that create opportunities for teachers to meet could enable instructional innovation. Leaders who neglect managerial concerns such as respecting constraints on the daily schedule resulting from collective bargaining arrangements (*de facto* limitations on what can be asked of teachers) may have difficulties executing leadership tasks of the sort described just above.

Without attention to stability and maintenance of organizational structures and routines, it may be very difficult to understand the significance of particular leadership tasks. Efforts to transform teaching and learning guided by a technical logic are likely to depend in some measure on preserving the legitimacy of the institution by maintaining confidence of external constituents which is informed by an institutional logic (Meyer & Rowan 1977). Seen in this light, much of the work of school principals is directed outwards to external constituents in an effort to protect the legitimacy of the organization and away from teaching and learning. In schools, leadership tasks designed to promote change may depend in substantial measure on the successful execution of tasks designed to preserve the status quo.

Leadership Tasks and Functions. Breaking leadership practice into component tasks is an elusive activity because the work of administrators is characterized by “brevity, variety, and fragmentation” (Mintzberg 1973, p. 31; Leithwood & Steinbach 1995; Martin & Willower 1981). The disjointed, discretionary, and emergent work of school leaders, characterized by Weick (1989) as “fire-fighting,” results in a decision-press which can lead to a focus on short-term problem resolutions rather than long-term planning (Peterson 1978). However, because school leaders do not work purely in reaction to their environment, our analysis of their practice is tied to an understanding of the task structures that, over time, inform and guide their work. Recent work argues for approaching school leadership through understanding leadership functions rather than the work of positional leaders (Heller & Firestone 1995). Pursuing a task-centered approach,

grounded in the functions of leadership within the school, offers a means of accessing leadership practice. While others focus on the “networks of roles” that exist between multiple actors and make up organizational leadership (Ogawa and Bossert 1995), our distributed perspective focuses on the interdependencies between leadership *activities* or *practices*. Hence, the distributed frame allows us to examine how social interaction *and* situation simultaneously constitute leadership practice rather than focusing chiefly on social interaction among individuals.

What constitutes a leadership task? Constructing a school vision, holding a disciplinary hearing regarding misbehavior on a recent class trip, conducting a meeting to persuade parents of the merits of a new discipline code, or monitoring the instruction in a second grade reading classroom are all leadership tasks. Yet, there is tremendous variation in the grain size of these tasks. A leadership function like “constructing a school vision” consists of numerous tasks including writing a draft vision, facilitating a staff meeting to discuss the draft, and revising the drafts that are spread out over months or even years. In contrast, facilitating a disciplinary hearing is a micro task perhaps connected with the macro function of establishing a safe school climate. The literature documents a variety of macro school-level functions that characterize successful, well-run schools. For example, Purkey and Smith (1983) note that school-site management, planned curriculum coordination and organization, linking staff development to the expressed concerns of the staff, and a strong sense of order and discipline, are some key characteristics of effective school communities. More particularly, an extensive literature identifies and describes macro school-level functions that are thought essential for instructional innovation (e.g. Blase & Blase 1998; Blase & Kirby 1992; Firestone & Corbett 1988; Gousha 1986; Leithwood & Montgomery 1982; Seashore Louis, Toole, & Hargreaves 1999; Sheppard 1996). Synthesizing this literature, we can identify several functions that are important for transformational instructional leadership:

- constructing and selling an instructional vision;

- developing and managing a school culture conducive to conversations about the core technology of instruction by building norms of trust, collaboration and academic press among staff;
- procuring and distributing resources, including materials, time, support, and compensation;
- supporting teacher growth and development, both individually and as a faculty;
- providing both summative and formative monitoring of instruction and innovation;
- establishing a school climate in which disciplinary issues do not preclude instructional issues;

These leadership functions provide a framework for analyzing leadership tasks and exploring their relation to instructional innovation. Focusing on macro functions alone, however, will not enable us to understand leadership *practice* – we must also identify and analyze the micro tasks that contribute to the execution of macro functions. However, due to the fragmentary nature of leadership practice in schools, micro-tasks often appear to have little connection either with one another or with the school’s instructional goals (Lee 1987). The research challenge for understanding leadership practice is to reconstruct, through observation and interview, whatever links exist between the macro-functions and the micro-tasks of school leadership. For example, creating opportunities in the school day for teachers to work together, such as shared planning times, helps school leaders to build norms of collaboration within the school (Goldring & Rallis 1993). Similarly, the execution of micro-tasks such as frequent classroom observations, distinguishing summative and formative evaluation, and establishing professional relations between the observer and the observed help realize the macro functions of supporting teacher growth and monitoring instruction (Little & Bird 1987).

The nature of a task influences what it takes to successfully complete the task. For example, research suggests that the cognitive skills of framing and resolving non-routine tasks, as distinct from routine tasks, differentiate expert from novice principals (Leithwood & Steinbach 1995). Our earlier discussion suggests that tasks can also be sorted into instructional, managerial, and political

categories, although these categorizations are not mutually exclusive (Cuban 1993). We propose that research on analyzing leadership tasks should be extended to focus on dimensions that include task complexity, task ambiguity, and the knowledge entailments of a task. We know from research in organizations in general and schools in particular that the clarity and complexity of the core technology (in the case of schools, instruction) influence the behavior of managers (Thompson, 1967; Hannaway & Sproull 1978-79; Peterson 1985). For example, greater clarity (i.e., specificity) with respect to instructional practices enables closer supervision of teaching by school leaders. An in-depth analysis of leadership tasks is important because tasks that appear similar can turn out to be very different on careful scrutiny. For example, the particulars of a task such as facilitating a teacher workshop on mathematics instruction depends in some measure on, among other things, the knowledge of the teachers one works with and the particular skills one wants teachers to develop.

Enacting Leadership Tasks. To develop a framework for analyzing leadership practice, however, it is necessary to move beyond the identification and analysis of tasks to explore their enactment. Indeed, the ways in which leadership tasks are enacted may be most important when it comes to influencing what teachers do (Blasé and Kirby 1992; Elmore, Peterson, & McCarthy 1995; Lambert 1995; Smylie & Hart 1999). There is often a difference, however, between what people do and what they say about what they do, a distinction that can be maintained without duplicitous intent. Organizational policies can reflect ideal or desired tasks rather than what people actually do (Orr 1996), and personal accounts of action often convey *post facto* sense-making efforts that refine the complexities of the experience (Weick 1996). “Espoused theories” of practice (Arygris & Schon, 1974) or “canonical practice” (Brown and Duguid 1996) that are found in formal accounts, official policies, and job descriptions, are often abstracted from day-to-day practice, providing overly-rationalized portrayals of ideal practice in which the challenges and uncertainties of unfolding action are smoothed over in the telling (Weick 1979; Brown & Duguid 1991). Research suggests substantial differences between espoused theories and the “theories in use” that guide day-to-day practice (Arygris & Schon 1974). For example, Orr (1996) shows how the espoused theories (training manuals, troubleshooting guides and decision-trees) of a copy-

machine repair organization tell a fundamentally different, more rationally ordered story of work than the emergent, discretionary work of the repair technicians. Orr found that repair workers supplement espoused practices with a rich, shared cultural library of case-stories used to diagnose and resolve problems. Thus espoused practices, while often readily accessible, serve as insufficient roadmaps to practice. To gain insight on practice, we need to understand a task *as it unfolds* from the perspective and through the “theories in use” of the practitioner.

Analyzing leadership practice involves understanding how school leaders define, present, and carry out their tasks. Previous scholarship shows that “expert” principals are better able to regulate their own problem-solving processes and are more sensitive to the task demands and social contexts within which tasks are to be solved (Leithwood & Steinbach 1995). We suspect, however, that a greater range of processes influence how school leaders enact their tasks. Recently, some scholars have worked to understand task-enactment through documenting the day-to-day practices of school leaders, exploring their relationship to macro school functions considered essential for innovation (Goldring & Rallis 1993; Little & Bird 1987) and their effects on teachers’ work (Blasé 1993; Blasé 1999; Short 1995). For example, strategies such as frequent classroom observing and distinguishing summative and formative evaluation help realize the macro function of supporting teacher growth (Little & Bird 1987). A recent study of teachers’ perspectives on principals’ day-to-day leadership behavior, identified two major themes – talking with teachers to promote reflection and promoting professional growth – that made up some 11 strategies that effective principals, as identified by teachers, used to promote instructional change (Blasé & Blasé 1999; 1993). For example, this study defined six strategies that principals used to promote teacher reflection including making suggestions, giving feedback, modeling, using inquiry, soliciting advice and opinions, and giving praise (Blasé & Blasé 1999, p. 359). While this recent work has contributed enormously to our understanding of everyday task enactment, it has shed limited light on the beliefs and experience that leaders bring to their work and, in some cases, the influence of context on leaders’ practices. For example, when it comes to enacting tasks considered essential for instructional innovation, school leaders’ subject matter and pedagogical knowledge, coupled with

their beliefs about teacher learning and change, may influence how they present and carry out these tasks. Recent work suggests that administrators' assumptions about teaching and mathematics instruction influence what they notice and how they evaluate mathematics lessons (Nelson 1997; Nelson & Sassi 1998). Task enactment becomes more complicated if one assumes a distributed perspective; that is, if one assumes that human activity is not simply a function of individual skill and knowledge but spread across people and situation.

The Social Distribution of Task Enactment. At one level, a distributed perspective presses us to identify (and explore the enactment of) leadership tasks as performed by multiple formal and informal leaders. Consistent with scholarship which suggests that school leadership reaches beyond those in formal leadership positions (Gronn, 2000; 1999; Heller & Firestone 1995; Leithwood et al. 1997; Polite, 1993; Ogawa and Bossert, 1995), a distributed view of leadership incorporates the activities of multiple individuals in a school who work at mobilizing and guiding school staff in the instructional change process. Our distributed perspective focuses on how leadership practice is distributed among positional and informal leaders as well as their followers. Understanding how leaders in a school work together, as well as separately, to execute leadership functions and tasks is an important aspect of the social distribution of leadership practice.

We argue that the social distribution of leadership means more than acknowledging the division or duplication of labor (though that is an important aspect) in the enactment of leadership functions and tasks (Heller and Firestone 1995). A distributed perspective presses us to consider the enactment of leadership tasks as potentially *stretched over* the practice of two or more leaders and followers. Hence, the social distribution of leadership practice involves more than developing additive models that capture the "amount" of leadership or that are inclusive of the work of all leaders in a school (Pounder, Ogawa, Bossert 1995, Ogawa and Bossert 1995). It also involves understanding how leadership practice is stretched over the work of various school leaders and exploring the practice generated in the interactions among these individuals. We use "*stretched over*" to highlight that the distribution of leadership involves not only a consideration of who takes responsibility for which leadership tasks, but also a consideration of how leadership activity is

accomplished through the interaction of multiple leaders and followers. In this view, leadership practice might be “in between” (Salomon & Perkins, 1998) the practice of two or more leaders. From a distributed perspective, a multiplicative rather than additive model is most appropriate because the interactions among two or more leaders in carrying out a particular task may amount to more than the sum of the two leaders’ practice.

As a preliminary attempt to illuminate how leadership practice might be stretched over leaders and indeed followers we focus on dependencies or interdependencies among activities (e.g., March & Simon, 1958; Lawrence & Lorsch, 1967; Thompson, 1967). Thompson (1967) developed a typology that identified three sorts of interdependencies between activities – pooled, sequential, and reciprocal. Pooled interdependency refers to situations in which activities share or produce common resources but are otherwise independent. Sequential interdependency refers to situations in which some activities depend on the completion of others before beginning. Reciprocal interdependency refers to situations in which each activity requires inputs from the other. While the original focus in the organizational literature on interdependencies between activities has been replaced with a concern for interdependencies among organizational units (Malone et al. 1999), recent work has rekindled interest in interdependencies among activities (Malone et al 1999).³

We adopt this interdependencies scheme as a tool for unpacking how leadership practice is stretched over the work of multiple leaders. Leadership activity, we argue, is constituted in the interaction of multiple leaders (and followers) using particular tools and artifacts around particular leadership tasks. The interdependencies perspective grounds our examination of social interaction in concrete leadership activities and the connections among these activities. Further, it also allows us to explore the interdependencies among the constituting elements – leaders, followers, and situation - of leadership activity. We therefore press on Thompson and Malone’s work by not only examining interdependencies between activities, but by also examining the interdependencies *within* activities or, more specifically, the interdependencies among two or more leaders and followers in executing a task.

One way of understanding interdependencies in leaders' practices concerns the ways in which two or more leaders jointly enact school leadership practice. For example, in one of our schools, Carson elementary⁴, standardized test scores, and a breakdown of student performance in particular skill areas, are used to focus instructional improvement efforts on specific student learning needs. This strategy involves a number of interdependent steps, and actors, each building on resources produced through the completion of prior steps. First, the tests must be administered to students, requiring scheduling and coordination. Second, the test results must be received, analyzed, and interpreted by school personnel. Third, based on this analysis, instructional priorities are identified and disseminated and their implementation monitored throughout the school. And finally, classroom teachers must participate in professional development and implement the instructional changes in classrooms if they are to be meaningful.

The example from Carson illuminates how leadership activity is distributed across people while adding a temporal dimension to jointly enacted leadership. Taking into account the multiple activities involved in Carson's efforts to use student test scores to lead instructional improvement there is a sequential interdependency among various activities. In this case, one leadership activity – determining instructional priorities- depends upon the completion of another activity – interpreting student results. The vignette illuminates how the enactment of certain leadership tasks depends upon resources generated from prior tasks. It also shows how interdependencies between leadership activities are not spatially or temporally bound. In other words, leadership activities can be interdependent even when separated by time and space. Figure 2 visually depicts the sequential interdependencies among activities.

[Insert figure 2 here]

A second sort of distribution across leaders is a “pooled” interdependency, in which activities performed separately produce a common resource [why resource? Why not practice? . At Ellis school, the principal and assistant principal work separately but interdependently on the task of evaluating instruction. The assistant principal, who maintains a friendly and supportive relationship with teachers, visits classrooms frequently and engages in formative evaluation by

providing regular feedback to teachers on instructional issues. The principal, on the other hand, functions more as an authority figure and engages in summative evaluation. She visits the classrooms one to two times per year and makes final determinations on the quality of teachers' instructional practices. The assistant principal shares his learning with the principal and the two use their collective observations to develop an understanding of teachers' instructional practices. These two leaders, working separately but interdependently, to co-construct teacher evaluation. The activity of evaluating instruction is engaged in by two actors who work separately, however, their work is interdependent because it produces a common teacher evaluation practice. Moreover, their work is coordinated because they share a common goal (improved instruction), seek to reach it through a common approach, and communicate with each other about their work. While some observers might see the practice of these two leaders as independent, one can only understand evaluation practice at this school if you factor in both practices. The assistant principal's practice only makes sense when considered in relation to the Principal's practice. Likewise, while some might view this practice as a division of labor, we argue that these leaders are not engaged in discrete tasks but that leadership activity, the practice of evaluating instruction in this case, is stretched over their work. Figure 3 shows how we view this as pooled interdependency.

[Insert figure 3 here]

Finally, there is a "reciprocal" interdependency among leaders. In this type of interdependency, the enactment of a leadership task depends on the interplay between two or more actors (and, as discussed in the next section, aspects of the situation). Consider the following example. At monthly planning meetings, the math coordinator, fourth grade lead teacher, and the assistant principal worked together to coordinate the work of a curriculum committee made-up of teachers from each grade level who were redesigning the elementary school mathematics curriculum for the following academic year. The math coordinator, with a master's degree in mathematics, is recognized by colleagues for her knowledge of mathematics, while the assistant principal has a keen understanding of state and district standards and accountability measures, especially the learning priorities established by mandated state and district standardized examinations. The fourth grade

lead teacher who recently completed a master's degree in curriculum and instruction, has keen interest in and knowledge of mathematics pedagogy. The practice of facilitating this committee is constituted in the interaction of these three leaders, the teachers, and the material artifacts they used. For example, at one meeting, the assistant principal argues that fourth grade teachers should teach multiplication of fractions in fall semester so that the students have mastery of that skill for the test in February. The mathematics coordinator notes that this would only work if kids have already mastered multiplication facts and multiplication situations (word problems) and developed a working understanding of fractions. She points out that these are pre-requisites for understanding multiplication of fractions and gives the group a few examples of why these topics are important. At this point, the fourth grade lead teacher interjects arguing that all of these other topics cannot be covered prior to winter break. Hence, it will not be possible to cover multiplication of fractions by February. Most of the teachers agree and marshal considerable evidence to support the lead teacher. Initially, the assistant principal insists that multiplication of fractions must be covered. She suggests that the bare essentials could at least be covered in all four areas, or alternatively perhaps they could skim over the prerequisite concepts. The math coordinator reminds her that some of the questions on the new examinations require students to explain their answers and that this would be difficult for students if they did not have a firm grasp of the key mathematical principles involved in these topics. Memorizing procedural knowledge alone would not cut it. As the conversation proceeds, the group decides to teach the meaning of fractions and multiplication facts in the spring semester of third grade so that students will be better prepared when they reach fourth grade to take up multiplication of fractions. In this example, leadership practice is constituted in the interaction among these three leaders, the teachers, and the material artifacts. There is also a reciprocal relationship between the practice of these leaders. Each requires input from the others to facilitate the activity. In reciprocal interdependencies, individuals play off one another, with the practice of person A enabling the practice of person B and vice-versa. Hence, what A does can only be fully understood by taking into account what B does and visa-versa. This collective leading depends on

multiple leaders working together, each bringing somewhat different resources – skills, knowledge, perspectives - to bear.

[Insert figure 4 here]

In the above scenarios, the group (or group of individuals) performing the task has cognitive properties that exceed those of any one member – “the cognitive properties of groups are produced by an interaction between structures internal to individuals and structures external to individuals” (Hutchins 1990, p. 306). We contend that the collective cognitive properties of a group of leaders working together to enact a particular task leads to the evolution of a leadership practice that is potentially more than the sum of each individual’s practice. Consequently, to understand the knowledge needed for leadership practice in these situations, one has to move beyond an analysis of individual knowledge and consider what these leaders know and do together. Depending on the particular leadership task, school leaders’ knowledge and expertise may be best explored at the group or collective level rather than at the individual leader level.

A final aspect of the social distribution of leadership practice concerns ways in which leaders’ practice is distributed among leaders and followers. Previous work underscores the relational nature of leadership, suggesting that leaders not only influence followers but are also influenced by them (Cuban 1988; Dahl 1961; Crowe, Bochner, & Clark 1972; Hollander 1978). “Whether an order has authority or not lies with the persons to whom it is addressed” (Barnard, 1938, p. 163). The emphasis here is on the development of a “negotiated order” between leaders and followers: Leaders are dependent on the followers they lead (Fine 1984; Smylie and Hart 1999; Dunlap and Goldman 1991). Research in micro-politics suggests that while leaders can often draw on positional authority to support the beliefs and actions they advocate, followers can influence leaders by drawing on personal characteristics, access to information, or special knowledge or expertise (Bacharach & Lawler 1980). For example, teachers often have specific knowledge about classroom practice that they use to influence positional leaders (Dunlap and Goldman 1991). Finally, followers may influence leadership strategies by finding subtle ways to resist administrative

controls through “creative insubordination” (Crowson & Morris 1985, Blasé and Anderson 1995).

A socially distributed perspective on leadership practice extends these arguments by suggesting that the role of followers in leadership practice involves more than influencing the actions taken by formal leaders or the effects of formal leadership. From a distributed perspective, followers are an essential constituting element of leadership activity. Rather than a variable outside of leadership activity that influences what leaders do or mediates the impact of what they do, followers are best understood as a composing element of leadership activity. Consider an example. An assistant principal and lead reading teacher work to foster reflective dialogue among fifth grade teachers using “Writer’s Workshop”, which fifth grade teachers have been using for a semester. In this case, teachers’ accounts of their enactment of the Writer’s Workshop, as well as some of the stories fifth graders have composed in the program, become the focal points of bi-weekly meetings convened by the assistant principal and lead teacher to promote teachers’ reflection about reading instruction. The followers in this situation – the teachers – in interaction with the two leaders and a variety of artifacts define the leadership practice through the accounts of practice they share and their discussion of these accounts. Here, we see a reciprocal interdependency between leaders and followers in the generation of leadership activity.

The Situational Distribution of Leadership Practice. In our view, leadership practice is *situated*. Acknowledging the mutuality of the individual and the environment, the distributed view underscores that activity is *distributed* in the interactive web of actors, artifacts, and *situation*. Prior research has established the importance of situation to leadership arrangements in organizations. Contingency theorists argue that the most effective or appropriate organizational structure depends on the nature of the work (the technology) being undertaken by the organization and the environmental demands the organization has to negotiate (Fiedler & Chemers 1974; Galbraith 1967; Lawrence & Lorch 1973; 1977). Aspects of the situation including the complexity and uncertainty of the work performed by the organization, its size, and the complexity of its environment influence an organization’s structural arrangements and performance (Scott 1992).

Work on schools illuminates how the circumstances of leadership influence what leaders do as well as the effects of what they do on followers (Murphy 1991; Moore Johnson 1996; Hallinger and Murphy 1987; Bossert, Dwyer, Rowan, & Lee 1982; Rosenholtz 1989). For example, the clarity and complexity of the instructional technology influences the extent to which school administrators coordinate and control the work of teachers (Cohen & Miller 1980). In addition to instructional technology, researchers have also examined other situational variables including district office support (e.g., provision of resources and technical assistance) and priorities), staff composition (e.g., age, educational level, stability), and the school's social or community context (e.g., SES of parents) (Bridges 1984; Dwyer et al., 1983). In order to lead effectively, leaders must adapt their behaviors to the characteristics of their staff. For example, schools with a more mature and stable staff are likely to have principals with more indirect leadership styles compared with schools with younger and less stable staff (Dwyer et al. 1983; Cohen et al. 1977). While we agree that these aspects of the situation are important in studying school leadership and its effects, our treatment of situation differs in a number of respects.

Our approach to situation differs from contingency theorists in at least four ways – the positioning of situation vis-à-vis leadership activity, the relations between situation and leadership, the aspects of the situation that are critical, and the aspects of leadership that merit attention. To begin with, in contingency theory situation or context is treated chiefly as something that is outside and working independently or interdependently to influence leadership activity: Aspects of the situation are treated as independent or interdependent variables that shape leadership behavior and/or mediate the effects of leadership on teachers or other organizational members. For example, in one excellent review of the literature the authors talk about situation (no doubt reflecting the state of the literature) in terms of creating “a context within which principals act” and “its influence on the actions of school leaders” (Hallinger and Murphy, 1987, 182). Situation as manifest in organizational size, staff characteristics, among other factors is treated as something impacting leadership practice from outside the practice. Situation impacts what leaders do and the effects of what they do. However, in keeping with activity theory and distributed cognition, our distributed

perspective argues that situation is not external to leadership activity but one of its core constituting elements (see Figure 1).

As discussed earlier, work in activity theory and situated cognition argues that situational elements are constitutive of human practice, demonstrating how difficult it is to separate the capacity for action from the context of action (Pea 1996). Situation or context does not simply "affect" what school leaders do as some sort of independent or interdependent variable(s); it is *constitutive* of leadership practice. Situation is best understood as a fundamental and constituting component of leadership practice. Because situations offer particulars – e. g., tools of various kinds, organizational structures, language - that are constitutive of leadership practice, as these particulars vary so too will *the how* of leadership practice. By situated then we mean that leadership activity is to varying degrees distributed or stretched over various facets of the situation including tools, language and organizational structure. For example, Mehan (1994) documents how the defining policies of the special education establishment create as well as identify categories of students. Here the categorization procedures are constitutive of the very disorders the system is designed to support. Situation is detached from practice and works to influence leadership activity by impacting or pressuring it from outside the activity.

A second distinction concerns the rather deterministic treatment of social structure in contingency theory. Contingency theorists tend to view structure as a determining rather than constraining (Child 1972; Pfeffer 1981), or indeed enabling, human activity. The distributed perspective argued for here, as we will elaborate below, suggests that aspects of the situation enable or constrain leadership activity while that activity can also transform aspects of the situation over time. As argued earlier, in our framework situation is both constitutive of and constituted in leadership activity.

A third distinction we draw concerns the aspects of the situation that are important in investigating leadership activity. While we agree with contingency theorist that aspects of the situation such as staff size and stability, environmental complexity, and task complexity and certainty are important, we argue that other aspects of the situation are also especially critical in

studying leadership practice. Specifically, in our framework symbols, tools, and other designed artifacts that are part and parcel, and mostly taken for granted aspects, of day-to-day leadership practice are integral in investigating leadership activity. Further, by structure we mean not only organizational structures (Ranson, Hinnings, & Greenwood 1980) but also broader societal structures including race, class, and gender (Filby & Willmott, 1988; Abolafia & Kilduff, 1988) and the manner in which these manifest themselves in interactions among leaders and followers in the execution of leadership tasks. Finally, while contingency theory tends to focus chiefly on the effects of situation on broad leadership styles and organizational forms, we are concerned with day-to-day leadership activity, not just broad styles of leadership or organizational structures and roles.

By situation we mean the sociocultural context (including artifacts) that can embody the stable or reified in work practices such as leadership – “crystallized operations” (Leont’ev 1978) or “reifications of practices” (Wenger 2000). It is important to keep in mind that these are inventions and frequently they wear out and are redesigned or re-invented over time. As integral constituting elements of human activity, artifacts of various sorts are not just sources of ideas and guidance for action but vehicles of thought (Perkins 1996). Hence, the introduction of new tools or artifacts does not merely make the work of leaders more efficient but can transform the nature of the leadership activity.

The challenge for a distributed leadership framework is to identify those aspects of the situation that are critical in constituting leadership practice. We have already brought to the fore the *tasks* of leadership as the thread that winds through leadership practice; here we turn to some of the significant aspects of the sociocultural context that are constitutive of that practice. To develop this point, we consider some aspects of the situation, emphasizing the structural context of leadership as mediational means (Wertsch 1998) that serve both as the medium and outcome of human action (Giddens 1979, 1984). To illuminate these ideas, we then consider how leadership practice might be spread out across three dimensions of the situation: designed artifacts, language, and organizational structure.

Our conception of situation draws heavily on the work of Giddens (1979, 1984), Wertsch (1991), and Swidler (1986). We argue that leadership practice cannot be extracted from its socio-cultural context -- that it is situated in cultural, historical, and institutional settings (Wertsch 1991). Drawing from Giddens, we distinguish between *structure*, the rules and resources that provide the medium and outcome of social action, and *system*, “reproduced relations between social actors or collectives organized as regular social practices” (Giddens 1979, p. 66). Social system refers to social institutions like work, family, school, or other constellations that we recognize as having some level of stability and regularized patterns of social interaction. Structure, on the other hand, represents the properties of social systems that enable and constrain social action. So, for example, within a school (social system) the organization of grade levels (structure) shapes social interaction, whereas language provides a medium of action in this social system as a structural property constitutive of human action in schools. Our use of structure as the medium of human interaction in social systems is similar to Wertsch’s (1991) conception of “mediational means,” which he argues enable and shape human action in important ways. To understand human activity we must investigate individuals “*acting in conjunction with mediational means*” (Wertsch 1991, p. 33). Our framework includes *structure*, or the rules and resources that are the medium and outcome of social relations within social *systems*, and *system*, which refers to reproduced relations between social actors.

We have argued above that *human agency* is embedded in the situation and therefore we need to illuminate how we see structure and agency interacting in the construction of leadership practice. While our distributed perspective on leadership practice assigns a central role to structure, we are not advancing a structural determinist argument where all “agency” is ultimately predicted by the structure in which it is embedded (Althusser 1971). Structure is both constitutive and constituted. We argue that the structural properties of social systems can be conceptualized as a ‘tool kit’ of rules and resources that may facilitate action. Here we borrow from Swidler (1986) who argues that culture provides a tool kit through which social actors deploy strategies of action. These strategies are informed by a repertoire of skills and resources to which people have access.

We argue that structure, as mediational means, provides a basis for action from which people pick and choose in an effort to accomplish desired ends. Thus we avoid the structural determinism while recognizing how structure is constitutive of human action. It is important to note that we recognize the unequal distribution of resources and the differential implications of rules for different social actors. We view this as the basis of structure as a potential constraint on action. For example, organizational arrangements that stymie communication among teachers might constrain leadership practice for instructional innovation. Likewise, adversarial relationships between home and school might work against home-school collaboration and undermine instructional innovation.

Having considered the conceptual issues with respect to relations between situation and leadership activity, we now explore how leadership practice might be stretched over its situation or context from a micro-perspective. Specifically, we want to illuminate the ways in which situation might be constitutive of day-to-day leadership practice. We consider how leadership practice might be distributed across dimensions of the situation including designed artifacts and organizational arrangements. While other dimensions of the situation may also be important, a consideration of these two will enable us to articulate in more specific ways what we mean when we argue that the situation of leadership practice is constitutive of that practice.

Designed Artifacts. Designed artifacts are constitutive of leadership practice. Leadership practice is situated in an environment composed of artifacts that represent, in reified forms, the achievements and problem solving initiatives of previous human action. Artifacts here refer to externalized representations of ideas and intentions that are constitutive of leadership practice (c.f. Norman, 1988). Leaders' thinking and practice is mediated by these artifacts: they serve as constituting components of leadership practice, not simply devices or means that allow individuals to do what they want to do. However, while artifacts form tangible features of the school environment, the ways in which they are utilized also depends upon the agency of social actors and the situation in which they are introduced. In other words, artifacts are constitutive of and constituted in human activity.

Leaders do not work directly on the world; their actions in and on the world are mediated by a continuum of artifacts (Wertsch 1991). At one end of the continuum are *tools*, ranging from material artifacts such as memos, meeting agendas, computer programs for analyzing test data, district policies (e.g., teacher evaluation protocols) to more abstract artifacts such as the temporal arrangements of the workday. These artifacts represent identifiable created or emergent entities or routines that both define and are redefined by leadership practice. At the other end, are *symbols*, that is, language-based systems, rhetorical strategies and vocabularies, that constitute artifacts difficult to pin down in both their origins and specific effects but pervasive in their cumulative defining of practice. Both tools and symbols are kinds of artifacts, that is, created entities either designed by individuals or gradually defined by multiple audiences in order to enable particular practices. A distributed perspective on leadership seeks to both articulate the range of these artifacts as they constitute leadership practice and to characterize the ways in which such artifacts define and are defined by leadership activity.

On one end of the continuum, designed material artifacts such as forms, memos, and agendas constitute the material context in which schoolwork is done.

- *Forms*, as designed artifacts, serve as mediational means for leadership activity. Investigating leadership practice involves understanding leaders' practice as both enabled and constrained by forms of various sorts. Consider for example the practice of teacher evaluation. Many local school systems mandate that school leaders use a particular teacher supervision form when undertaking summative evaluations of teaching practice. Understanding the practice of teacher evaluation involves exploring the mediational properties of these evaluation protocols, that is, how these forms are constitutive of leadership activity. If we consider two very different evaluation protocols, the importance of the tool in understanding leadership practice will be further illuminated. Imagine "protocol A" consisting of a checklist of generic teaching processes of the sort identified by the "process-product" research tradition including items such as wait time and teachers' use of praise. In contrast "protocol B" is subject matter specific, including, for example, items on mathematics teaching such as "how the classroom

task represented doing mathematics,” and “how students were required to justify their mathematical ideas.” Using these forms observers’ attention is drawn toward different aspects of the teaching situation, thereby resulting in potentially different kinds of observation practice. Leaders may negotiate with forms in order to identify the aspects of practice they see fit to note, but the point still remains that the forms act as a defining element of the observation practice. The form or protocol is not simply an accessory or aide that the leader uses to execute the evaluation task in a priori manner. Further, because evaluation tools can *represent* teaching and the nature of what it means to be competent in teaching in different ways (as our two hypothetical examples illuminate), changing the protocol may contribute to changes in the practice of evaluating teaching.

- *Memos* represent artifacts designed to address particular issues of communication in schools. The subjects of memos can range from information dissemination to quite individualized messages regarding specific events in the school. For example, some leaders use informal, hand-written memos to congratulate faculty members on work well-done, to make reminders about following through on responsibilities, or to check in on relationships, while others use memos in lieu of faculty gatherings to make sure that the school community is up to date on current events. Such memos can convey a message of encouragement, interest, or surveillance, and are often regarded by both parties as a non-threatening means of communication. However, when problems about instruction, compliance or conduct escalate, more formal memos serve notice that binding communication procedures have been initiated. These formal memos can establish conditions of firing or instances of discrimination, and are often written with an eye toward the legal weight that they may have to shoulder. However, especially in the latter case, the form of the formal memo is an intrinsic property of the disciplinary activity. The memo of reprimand, for example, replaces an often difficult face-to-face conversation between leaders and a teacher or staff member, serving as an extension of the leader’s authority as well as a statement of administrative intent. These memos also serve as legal artifacts with the potential to represent the communication between the parties in the event of a claim by either party. Memos,

then, are artifacts that not only convey messages within the school, but their form represents a crucial *tool* that contributes to defining leadership practice. The practice of leadership in these situations is best understood by viewing the memo as a constitutive element.

- Finally, *meeting agendas* provide a good example to illustrate how material artifacts are constitutive of leadership activity especially when it comes to determining the legitimate issues of discussion (and contention) in the school. One important constituting element of leadership practice is the meeting agenda. Because of its power for shaping meeting conversation agenda setting is an influential tool available to leaders. The use of agendas varies both within and across leadership activity. In some activities, agendas become powerful formal artifacts to collaboratively shape the instructional agenda of the school, while in other activities the agenda emerges with the issues currently faced by the school community. For example, consider the differences in agenda setting by the same leadership team for different occasions. At a preliminary planning session meeting, the leadership team purposely constructed and distributed an under-specified agenda in the interest of communicating to participants that their contributions will be an integral aspect of the meeting time. On the other hand, when calling a meeting to outline the results of a planning process, the agenda was presented as a highly structured artifact intended to inform the audience while inviting little comment. In both cases, the agenda is a constituting element of the leadership activity. Similarly, a request for an agenda on the part of faculty and staff members could indicate a need to clarify why valuable time is being spent on faculty meeting issues. At Ellis school, once again, the agenda for professional development sessions throughout the school year are collaboratively developed among leaders and teachers every spring, and are firmly connected to the instructional agenda of the school improvement plan. Agenda setting and distribution is thus seen as a key artifact through which leadership actions are distributed throughout a school community. Such practices, enabled by the agenda artifacts themselves, communicate a strong sense of instructional direction to the school community and beyond. Examining the use of meeting agenda, or planning agenda more broadly, provides an artifact through which the practice of leadership becomes clearer.

Designed artifacts, however, are not limited to tangible, at-hand material items. More abstract artifacts such as the school day schedule and yearly calendars establish the “hidden rhythms” of school life (Zerubavel 1978). These artifacts collectively form representational schemata within which time usage and action in the school are structured. Yearly school calendars and faculty schedules shape the space and temporal resources available to the costly and time-consuming process of changing teaching. Further, district and school policies, learning technologies, and the school plant itself represent key artifacts that contribute to defining leadership activity. Many of these artifacts are experienced as “given” by school leaders as constraints that afford little opportunity for agency. And in fact, designed artifacts such as district policies often do not bear the imprint of local actors and, while designed, are received in the context of schools as constraints on practice. However, the consideration of how leadership activity is constitutive of and constituted by artifacts can highlight the interactive nature of designed artifact use in schools. For example, often school leaders feel constrained by yearly schedule for the range and depth of professional development opportunities they feel can be offered to teachers. These leaders feel that district mandated hours and times for professional development limit the possibilities for creative leadership in the school. Yet other leaders can see these same constraints as opportunities for collaborative staff negotiations about how this time should be, or might better be, spent. Leaders who construct meaningful incentive systems to exploit time set aside for district mandated development can create, over time, a professional community of practice within the school. The contrasting stories both illustrate how artifacts constitute leadership practice in schools and how they are constituted by that same practice when they are taken as an opportunity to work on building a professional community in the school. Considering the artifacts apart from practice may allow us insight into the intentions of the artifact designers, but considering the artifacts as they enable and constrain leadership practice provides a lens into leadership as a distributed practice in schools.

Organizational Structure. Similar to designed artifacts, leadership practice is stretched over organizational structures. A distributed perspective presses us to consider organizational

structure as more than a vessel for leadership activity and more than accessories that leaders use to execute a particular task using some predetermined strategy or practice. For example, the prevailing "egg-carton" organization of schools isolates teachers in their classrooms, providing them with few opportunities to discuss instructional issues with peers (Lortie 1975). Such individualized and privatized arrangements for teachers' work can stymie the dissemination of ideas about professional practice among teachers in schools. These organizational arrangements are constitutive of leadership practice, *not* simply hurdles external to that practice that leaders must overcome in order to enact a particular task using some predetermined practice. In other words, the "egg-carton" school structure is an essential constraint in the composition of leadership practice, fundamentally shaping how school leaders enact their tasks. Likewise, research from the institutional perspective informs us that schools "decouple" formal structure, e.g., administration and management, from core activities, e.g., teaching (Meyer and Rowan 1977; 1978; Weick 1976). Minimizing inspection of the uncertain core activities of schooling enables schools to maintain the confidence of their external constituents (Meyer and Rowan 1977; 1978). In our scheme, these institutional arrangements are constitutive of leadership practice; these assumptions about how things are done fundamentally shape leadership practice.

In proposing that organizational structures are constitutive of leadership practice we are not arguing that they *determine* that practice. School leaders are another constituting element: They notice, apprehend, and use organizational structures in a variety of ways. While organizational structures are constitutive school leaders' activity, it is also the case that these structures are created and recreated by the actions of leaders and others who work in schools. For example, in one of the Chicago elementary school in our pilot study, which had been characterized by limited dialogue among teachers and mostly privatized classroom practice, the principal established breakfast meetings in order to create a forum for teachers to exchange ideas about their instructional practices. According to the staff at this school, over time this opportunity for dialogue contributed to breaking down the school's "egg-carton" structure, creating new structures that supported peer communication and information sharing, arrangements that in turn contributed to defining their

leadership practice. Leadership practice is extended through organizational structures that enable the movement and generation of knowledge and incentives in the organization. In this case, leaders' practice both redefined and was defined by organizational structure. Research on schools as professional communities illuminates how alternative organizational arrangements can provide forums for teacher conversations and contribute to de-privatizing practice (Seashore-Louis & Marks 1996). From a distributed perspective, what is paramount is understanding the extent to which and how organizational arrangements are constitutive of leadership practice, not simply ancillary.

Mediational means while shaping human action are also reshaped through human activity. A tool is to some extent a bundle of dispositions or potentials that shape leadership practice under certain circumstances, but that can also be reshaped by that practice.

Discussion and Conclusion

Agreeing with some scholars with respect to the need for empirical investigations of leadership *activity* or *practice*, in this paper we developed a perspective on the *practice* of school leadership that centers on the *how* and *why* of leadership activity. We argued that to understand leadership practice, it is essential to go beyond a consideration of the roles, strategies, and traits of those individuals who occupy formal leadership positions in order to investigate how the *practice* of leadership is stretched over leaders, followers, and the material and symbolic artifacts in the situation. The situation of leaders' practice – material artifacts, tools, language, etc., - is not simply an appendage, but rather a defining element of that practice. Leadership practice (both thinking and activity) emerges in and through the interaction of leaders, followers, and situation, in the execution of leadership tasks.

The distributed leadership perspective developed here has implications for research on school leadership and efforts to improve the practice of leadership. With respect to empirical research on leadership, the framework provides some important leverage. First, it offers a theoretically grounded framework for studying day-to-day leadership practice, enabling

investigations of practice to go beyond documenting lists of strategies that leaders use in their work. In other words, it frames inquiry into leadership activity so that we can move beyond leaders' and teachers' accounts to develop more integrative understandings of leadership as a practice. Second, it suggests that leadership activity at the level of the school, rather than at the level of an individual leader or small group of leaders, is the appropriate unit of analysis in studying leadership practice. To study leadership practice we need to study leaders in action. Further, focusing either exclusively on one or more formal leaders or on teacher leaders is unlikely to generate robust insights into school-level leadership practice.

A third contribution is that our distributed frame specifies an integrative model for thinking about the relations between the work of leaders, and their social, material, and symbolic situation, one in which situation is a defining element in leadership practice. For example, one consequence of treating situation in this way is that the tools leaders use become central in the study of leadership practice. Forms, curricular documents, tools for representing test score data, and other material artifacts have rarely received systematic and in-depth attention in studies of leadership. We contend that systematic attention to these artifacts is essential in studying leadership practice.

Fourth, our distributed perspective suggests the need for more complex approaches to studying the expertise of leaders. From a distributed perspective, expertise is not simply a function of a leader's thinking and mental schemata. Viewing skill and expertise exclusively as a function of individual traits, styles, and schemata obscures how what leaders do is a function of their situation. A "*person plus*," as distinct from a "*person solo*" perspective (Perkins 1993) is necessary in order to understand leadership expertise as extending beyond the mind of individual leaders. Studies of leadership expertise must investigate how and the extent to which the expertise essential for the execution of particular leadership tasks are stretched over different leaders as well as the tools with which they work. In other words, investigating purposeful activity in its "natural habitat" is central to understanding leadership expertise. We do not mean to suggest that the distributed perspective developed here offers the only fruitful frame for a study of leadership

practice, though we are convinced it offers substantial theoretical leverage in studying leadership activity.

The distributed leadership perspective and the knowledge generated from subsequent empirical studies offer insights and leverage on the improvement of school leadership. The distributed leadership conceptual framework argued for in this paper offers a new, meta-lens to scholars for thinking about a familiar activity – leadership practice - by mobilizing a language and a set of analytical tools for reflecting on that activity. Understanding the distributed practice of school leadership will help to build legitimate stories of practice, grounded in the interaction of people and contexts in school environments recognizable to practitioners as evocative sounding boards for their own work. By providing a frame that helps researchers build evocative cases for practitioners interpret and think about their on-going leadership practice, the distributed perspective, and the empirical work that might be generated from research using this frame, offers a tool to help researchers and practitioners to change that activity. For example, cases of how leadership is stretched over individuals in schools in a variety of ways that vary depending on the particular leadership tasks and situations might help leaders to think about the enactment of leadership tasks in new ways. Similarly, thinking about material artifacts as critical elements of leadership practice might press school leaders to consider the tools they use and how these tools both enable and constrain their practice.

The distributed perspective also suggests some ways of thinking about intervening to change school leadership practice. Rather than proposing to develop, articulate, and disseminate a context-neutral, task generic template for the moves that leaders should make, it argues for the development of rich theoretical knowledge from practice that is context sensitive and task specific. Such knowledge can be useful in helping leaders reflect on their practice and conceptualize their work in realistically complex ways. Making the "black box" of school leadership practice more transparent through the generation of rich knowledge about how leaders think and act to change instruction, a distributed perspective can help leaders identify dimensions of their practice, articulate relations among these dimensions, and think about changing their practice. Further, the distributed

perspective also suggests that intervening to improve school leadership by focusing exclusively or chiefly on building the knowledge of an individual formal leader in a school may not be the most optimal or most effective use of resources. If expertise is distributed then the school rather than the individual leader may be the most appropriate unit for thinking about the development of leadership expertise. In addition, reformers might also think about how the tools they design represent expertise for leadership, enabling or constraining leadership activity.

In *Sensemaking in Organizations*, Karl Weick (1995) claims that "it takes a complex sensing device to register and regulate a complex object." We propose the distributed leadership framework as a sensing device for the complex practice of school leadership. If theory is to be more influential in guiding leadership practice, it will need to provide a frame, informed by practice, that helps leaders interpret and reflect on their day to day practice. The distributed leadership perspective developed in this paper promises to establish a rich knowledge-base upon which we can build cases of leadership practice.

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Figures

Figure 2: Sequential Interdependency

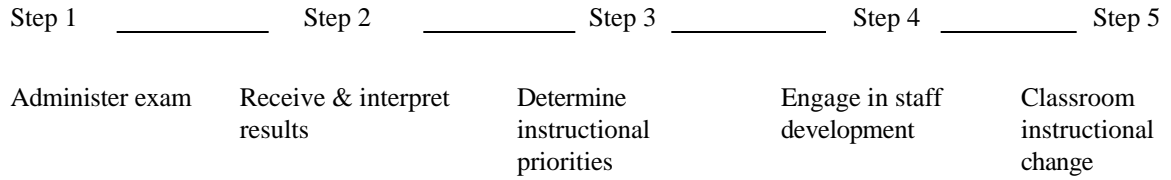


Figure 3: Pooled Interdependency

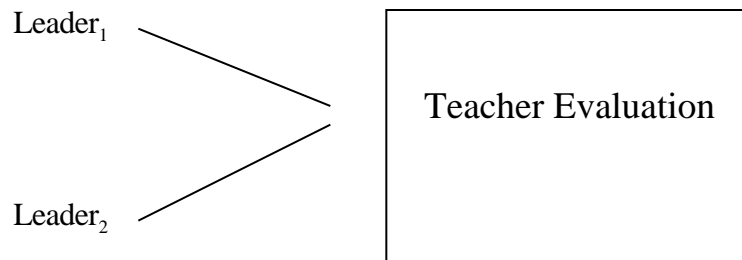
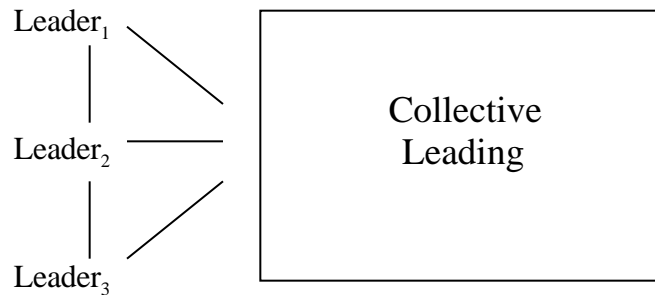


Figure 4: Reciprocal Interdependency



Notes

¹ Inattention to work practices among scholars is not unique to education. David Wellman, sums the situation up rather aptly when he notes that “how people work is one of the best kept secrets in America.” Wellman goes on to argue that, “the way in which people work is not always apparent. Too often, assumptions are made as to how tasks are performed rather than unearthing the underlying work practices” (Wellman 1995). Some scholars of business management and organizations have also noted this same inattention to the activity of leadership (Eccles & Nohria 1992; Heifetz 1994; Tucker 1981). Eccles and Nohria argue that an “action perspective sees the reality of management as a matter of actions and processes” (1992, p. 13). These scholars encourage an approach to studying leadership that centers on action rather than exclusively on structures, states, and designs.

² We view the distributed and stretched as complementary terms. We feel that the main distinction between them is that stretched over provides a more visual representation of what we mean by distributed.

³ Building on Thompson’s (1967) prior work, Malone and colleagues suggest another typology that includes three types of dependencies arising from resources that are related to multiple activities – flow, sharing, and fit. They note that flow dependencies arise whenever one activity produces a resource that is used by another activity. Sharing dependencies occur whenever multiple activities all use the same resource. Fit dependencies arise when multiple activities collectively produce a single resource. One distinction we draw between our work and the work of Malone and his colleagues is that we see resources and activities as overlapping while they draw a clear distinction between the two. Borrowing from Wertsch (1991) we argue that human action cannot be extracted from the artifacts or mediational means that enable or constrain it. Further, we also extend the frame in one important respect. For us, it is not just interdependencies among activities that matter but also dependencies within activities; that is interdependencies among two or more leaders in executing a task and among the constituting elements of the activity (see Figure 1).

⁴ All names of schools and people used in this paper are pseudonyms