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Distributed leadership as a unit of analysis☆

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Abstract

This article proposes a new unit of analysis in the study of leadership. As an alternative to the current focus, which is primarily on the deeds of individual leaders, the article proposes distributed leadership. The article shows how conventional constructs of leadership have difficulty accommodating changes in the division of labor in the workplace, especially, new patterns of interdependence and coordination which have given rise to distributed practice. A number of forms of distributed leadership are then outlined, in particular, three varieties of concertive action in which a key defining criterion is conjoint agency. These forms provide the basis for a taxonomy of distributed leadership and a review of examples in the literature. The article concludes with a consideration of some implications of the adoption of a revised unit of analysis, particularly for recent work on levels of analysis and for future research into leadership as a process.

1. Introduction

In the social sciences, the study of leadership has long been dominated by a conception of focused leadership. At the heart of this understanding is a strong commitment to a unit of analysis consisting of a solo or stand-alone leader. This claim is confirmed by Rost's (1993) recent extensive review of the literature. Rost (p. 70) noted, for example, that despite signs of an incipient challenge to mainstream analyses of leadership by the end of the 1970s, more

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than 130 books published in the next decade reinforced the conventional, orthodox message that "leadership is basically doing what the leader wants done." This continued endorsement of the traditional focus of study is odd, given other important efforts to recontour the entire field of leadership. While surprisingly little work has been undertaken on units of analysis, significant developments have been made with levels of analysis (see Dansereau & Yammarino, 1998b). An important contribution here has been Hunt's work on extended multilevel leadership (e.g., Hunt, 1991; Hunt & Ropo, 1995) which has built on Jaques' theory of stratified systems (e.g., Jaques & Clement, 1995). Even within these extended level analyses, however, the idea of focused leadership continues to find favour with the majority of commentators.

The argument of this article will be that students and practitioners of leadership would be better served by a more expanded unit of analysis, based on a revised conception of leadership. As an alternative to focused leadership, I argue for a unit of analysis which encompasses patterns or varieties of distributed leadership. To that end, I outline a framework for understanding distributed organizational leadership and a taxonomy for classifying varieties of distributed patterns, based on a range of constituent elements identified in research studies.

Rost's pessimism about the 1980s was succeeded by a decade which bore witness to a surge of interest in a range of distributed phenomena among organizational theorists and researchers. Commentators drew attention to distributed decision-making (Committee on Human Factors, 1990), distributed cognition (Hutchins, 1996), and shared or dispersed leadership (Bryman, 1996, pp. 283–284; Miller, 1998, p. 4). Yukl (1999, pp. 292–293), a critic of what he terms the heroic leader paradigm, has noted of distributed leadership that it:

> does not require an individual who can perform all of the essential leadership functions, only a set of people who can collectively perform them. Some leadership functions (e.g., making important decisions) may be shared by several members of a group, some leadership functions may be allocated to individual members, and a particular leadership function may be performed by different people at different times. The leadership actions of any individual leader are much less important than the collective leadership provided by members of the organization.

Apart from this kind of comment which expresses a realisation of the existence of distributed leadership, and which implies its potential advantages from the perspective of overall organizational capability, there is a dearth of extended, analytical discussions of the concept (although see Gronn, 2000; Spillane, Halverson, & Diamond, 2000a, 2000b). This paucity of coverage is equally as puzzling as the lack of discussion of units of analysis, for the idea of dispersed or distributed leadership is not new. Indeed, it was in the 1950s that the Australian leadership theorist, the late C.A. Gibb (1913–1994), first raised the possibility of leadership displaying a distributed pattern. Gibb's remarks about leadership are the point of departure for my argument. The purpose of this article is not to reaffirm his work, nor to account for the curious neglect of his suggestion by commentators until its revival by Brown (1989) and Brown and Hosking (1986). Rather, the aim is to develop the idea of distributed leadership as a unit of analysis to which Gibb made brief mention in his entry on leadership in

the *Handbook of Social Psychology* (Gibb, 1954) and repeated in the second edition of the *Handbook* (Gibb, 1969).

The discussion is organized as follows. First, I consider a number of problems concerned with some current conceptions of leaders and leadership. Here I show that these stem mainly from the inability of orthodox dichotomies and dualisms to adequately represent leadership practice. Second, I distinguish between two forms of distributed leadership, numerical action and concertive action. As part of concertive action, I then discuss the three main patterns which are the focus of this article: spontaneous collaboration, intuitive working relations, and institutionalised practices. Third, these three forms of distributed leadership are positioned in relation to the prevailing assumptions in the field, and it is suggested how and why a distributed perspective provides a helpful perspective on practice.

The main argument will be that a distributed understanding is well aligned with the processes through which work is currently articulated as part of an emerging and ever-changing division of labor, due to task differentiation and reintegration. In particular, I show how new workplace imperatives are generating qualitatively different forms of interdependence between organizational personnel and that these have stimulated the adoption of distributed modes of work coordination. Fourth, I provide an indicative taxonomy of examples of concertive action, following which I discuss a range of distributed synergies currently experienced in the workplace. Fifth, I discuss two implications of distributed leadership. Finally, in the Discussion section, a number of issues are considered concerning levels and units of analysis, and future research.

2. The trouble with existing dualisms

Criticism of prevailing conceptions of leadership units of analysis is palpable and increasing (see Hunt, 1999). At least three sets of concerns among commentators can be distinguished. In each case, there is dissatisfaction with the two sacrosanct binaries or dualisms, which for so long have defined the focus of the field: leader–followers and leadership–followership. First, there are concerns with leader-centrism. Second, there is dissatisfaction with individually conceived leadership. A third criticism is antileadership, which views the very idea of leadership as anathema. These objections are dealt with in turn. Due to limitations of space, the summary and discussion of the various arguments concerning the basic leadership constructs is condensed. In the next section, the article develops a fourth criticism, which is that the retention of a unit of analysis incorporating the two conventional binaries precludes accurate analysis and understanding of leadership practice, in particular, the actual divisions of leadership labor which prevail in different contexts.

Concerns with leader-centrism take a number of forms, most of which are attempts to mitigate or eliminate the subordinate and dependent status inherent in what it means to be a follower. First, some commentators have sought to revitalise the notion of followership by purging it of an image of the obedient docility and asserting the complementarity of leader–followership (e.g., Berg, 1998). Second, leadership has been retained as a category, but with followership abolished by default through the adoption of a mechanism of leader rotation, as

at Moosewood, a restaurant collective (Vanderslice, 1988). This kind of turn-taking approach to leadership is one way of countering claims that when leadership–followership is institutionalised it yields learned helplessness for those relegated to the residual category of follower (Gemmill & Oakley, 1992). A third response has been to reject outright the cliché that there can be no leaders without followers by dispensing entirely with the notion of followership (Miller, 1998). The final, contrasting, response has been to take the cliché at face value and to see leaders as literally dependent on followers, and to concentrate exclusively on the behavior of the latter (e.g., Meindl, 1993, 1995). This strategy has been met with both unease (e.g., Dansereau & Yammarino, 1998a, pp. xxxiv–xxxv) and accusations of bias. Thus, although Ehrlich (1998, p. 309) concedes that "prior research on leadership has tipped the scale in favor of leaders," this is not a reason to "retreat toward followers, however enticing this path may be."

Dissatisfaction with individualism has focused mainly on normative aspects of the transformational and charismatic approaches to leadership. While some critics consider these two approaches together, perhaps in recognition of their conceptual overlap, one distinctive feature of transformational leadership for its proponents, in contrast to charismatic leadership, is that the leadership of teams can be collectively transformational (Sivasubramaniam, Murry, Avolio, & Jung, 2002). One concern with both approaches has been with the value attached to the concentration of influence in individual leaders. Keeley (1998, p. 125), for example, attacks Bass's model of transformational leadership as culturally at odds with James Madison's view that "inspired leadership can do as much harm as good" in a democracy, whereas transactional leadership is better suited to a system founded on a separation of powers doctrine. Bass's (1998, p. 175) response is that the checks and balances required by power separation serve to promote gridlock, which can only be cleared away by the best of leadership which is "both transformational and transactional." A second broad concern has been that the paradigm of individual transformational, charismatic, and visionary leadership represents a retreat to discredited heroics. Here, two particular concerns can be identified. First, the paradigm may have run its race. Thus, Miller (1998, pp. 9–12) inquires whether, in circumstances in which an increased incidence of abstention, withdrawal, and weakened commitment is detectable among organization members, time is up for the leader with vision. Members have switched off in such circumstances which are ill-conducive to vision-bearing, larger-than-life individuals, for a vision is "usually the product of a collective effort, not the creation of a single, exceptional leader" (Yukl, 1999, p. 298). Second, there is concern at the unconstrained scope for effectiveness attributed to the agency of individual leaders. Yet "it makes no sense," says Beyer (1999, p. 311) (and see Gronn, 1995, pp. 20–21), "to assume that all or even most of people's behaviors are caused by something some kind of leader does."

Antileadership arguments appeared in the mid-1970s. These began with Miner's (1975, p. 200) assertion that leadership had "outlived its usefulness," and culminated in Argyris's (1979) abandonment of the field for action science. Argyris claimed that leadership research was mainly additive, rather than cumulative, and that for it to be useful leadership knowledge had to connect with practitioners' theories-in-use. Calder (1977) gave coherence to antileader-

ship. He tried to reorient the object of research by replacing leadership, which he saw as a lay label for everyday interpersonal influence, with the construct of attribution. Calder (p. 190) claimed that "inferences about leadership are made only from differences in behavior which fit expectations of how leaders typically behave." For Pfeffer (1977, p. 110), these attributions of causality were reinforced by the effects of selection and inauguration processes, and symbols and ceremonies, but could be reduced were leaders to be chosen "by using a random number table." Leader causality was also queried by Kerr and Jermier (1978) who argued that other factors (e.g., employee self-motivation to perform, work group norms and characteristics inherent in the work itself) could substitute for leadership as equally plausible causal explanations of organizational outcomes. Two decades later, Jermier and Kerr (1997, p. 97) maintained that their substitutes claim had still not been properly addressed by the field.

These concerns with individualism have been met with reassertions of individualism. Initially, there was a rebuttal of antileadership. The decentralisation and fragmentation of leadership throughout many social groups, according to Gardner (1984), impaired a society's capacity to deal with transcendent questions. What was needed were leaders to induce social unity and purpose.

More recently, the concerns have been both accommodated and marginalised. Conscious of a groundswell of support for ideas such as self-leadership and leader substitutes, as well as shared or distributed leadership, Shamir (1999, p. 51) dichotomises focused leadership and instances of so-called leaderless collective action. The former he labels "strong"—or "disproportionate social influence in which the party that exerts greater influence on others (the leader) can be identified"—whereas the latter (i.e., distributed leadership) he deems "weak." In recognition that numerous workplaces are being reshaped by computer-supported cooperative work (CSCW) systems, and imperatives such as flexibilisation and career boundarylessness, Shamir's (p. 64) response is to call for a new charisma. He seeks charisma minus "the perception of the leader as extraordinary or the attribution of super-human qualities to the leader," but with:

> strong enough referent power to explain how leaders perform the integrative functions, offer answers to 'why' questions, increase members' internalized commitment, and provide the psychological safety needed in times of change, all these without the support of permanent strong cultures, or other 'substitutes'.

By contrast, an alternative way forward has been summarised by Miller (1998, p. 22) as a switch from devising normative models of organization to "a full appreciation of what it [i.e., organisation] is and how it works at present."

The argument of this article is consistent with this sentiment and with Miller's (1998, p. 18) suggestion to dispense with the category of followership, so that "organization becomes a process of negotiation between leaders." Gibb proposed two forms of leadership: distributed and focused. Instead of dualisms, then, which create hard and fast, either–or categories, a useful option is to interpret Gibb's two suggestions as end points of a continuum or a duality of possibilities. The remainder of this article concentrates on the distributed polarity of this continuum and anchors the discussion in the division of labor.

3. Distributing leadership

The main difficulty created by orthodox formulations such as leader–followers and leadership–followership is that they *pre*scribe, rather than *de*scribe, a division of labor. This prescription poses methodological hazards for researchers, however, particularly when actual divisions of labor are constantly changing. Schools, for example, are known to rely increasingly on teams in order to cope with the intensification of school administrators' work (Grace, 1995) that has accompanied the global-wide trend to site-based devolution. Such adaptive responses are less accommodated by conventional binaries and highlight the need for new focal units which connect with actual work practices.

3.1. Division of labor

The idea of the division of labor means the totality of the tasks, and the technological capability (i.e., tools and knowledge) for the completion of those tasks by workers. Changes in the division of labor occur with the addition of new tasks and new task requirements, and with the adoption of new technologies. Together, these elements constitute the technical side of the division of labor. There is also a social form of the division of labor. This is evident when individuals and groups decide, on the basis of their values and interests, the preferred arrangement or configuration of tasks (e.g., their scheduling, physical alignment, available technology). These relations are a key source of social and organizational power.

Inherent in the division of labor is a dialectical imperative encompassing both fragmentation and fusion. As tasks proliferate, are modified qualitatively, or become redundant due to external factors in the task environment, the technical side of the division of labor differentiates itself through a process of task specialisation. The rate and form of task differentiation are partly determined by decisions about appropriate and desirable ways of reorganizing and configuring the work, both through task integration and reorganization of the necessary labor (Sayer & Walker, 1992, pp. 15–17). This duality of differentiation–integration inherent in a division of labor is the source of emerging new forms of role interdependence and coordination which have resulted in distributed patterns of leadership.

3.2. Definition of leadership

In keeping with the thrust of Calder's (1977) argument about inferred causation, leadership is defined in this article as a status ascribed to one individual, an aggregate of separate individuals, sets of small numbers of individuals acting in concert or larger plural-member organizational units. The basis of this ascription is the influence attributed voluntarily by organization members to one or the other of these focal units. The basis of the attribution of legitimate influence by the attributing agents may be either direct experience, through first-hand engagement with the particular focal unit, or vicarious experience, and thus reputed, presumed or imagined. The scope of attributed influence encompasses the workplace-related activities defined by the employment contracts which operate in particular contexts. These

activities may be confined to one of the domains in Hunt and Ropo's (1995, p. 392) multilevel leadership model (i.e., systems, organizational and direct) or cut across two or three domains.

The individuals or multiperson units to whom influence is attributed include, potentially, all organization members, not just managerial role incumbents. Managers may be leaders but not necessarily by virtue of being managers, for management denotes an authority, rather than an influence, relationship (Coleman, 1990, pp. 65–81). Finally, the duration of the attributed influence may be short or long term.

3.3. Distributed leadership as numerical action

If focused leadership means that only one individual is attributed with the status of leader, an additive or numerical view of distributed leadership means the aggregated leadership of an organization is dispersed among some, many, or maybe all of the members. This additive understanding does not privilege the work of particular individuals or categories of persons, nor is there a presumption about which individual's behavior carries more weight with colleagues. On the other hand, numerical or multiple leadership allows for the possibility that all organization members may be leaders at some stage (Wenger, 2000, p. 231). In this way, says Miller (1998, p. 4):

> a telephone operator, a receptionist, a salesperson, and a chief executive is each from their different positions representing the system to the outside world and reflecting pictures of the outside world back into the system.

This multiple sense is the most common understanding invoked in the growing number of references to distributed leadership in the literature. It is also the distributed leadership which Gibb had in mind, although he thought quantifying it in practice by drawing "an arbitrary line on a frequency continuum" (Gibb, 1958, p. 103) was problematic.

3.4. Distributed leadership as concertive action

Distributed leadership in its numerical sense may be seen as the sum of its parts (i.e., the sum of the attributed influence), but there is also a holistic way of construing it. Gibb's (1969, p. 215) two passing mentions of holism were to "the multiplicity or pattern of group functions" of leaders and to the many roles constituting the "leadership complex." In this second sense of distribution, the conduct which comprises the unit of analysis is concertive action, rather than aggregated, individual acts. At least three forms of concertive action may be attributed with leadership. First, there are collaborative modes of engagement which arise spontaneously in the workplace. Second, there is the intuitive understanding that develops as part of close working relations among colleagues. Third, there is a variety of structural relations and institutionalised arrangements which constitute attempts to regularise distributed action. These modes of concertive action are the focus of the remainder of the discussion.

3.4.1. Spontaneous collaboration

Spillane, Halverson, & Diamond (2000b, p. 6, original emphasis) refer to leadership as distributed practice. This idea means that leadership is evident in the interaction of many leaders, so that "leaders' practice is *stretched over* the social and situational contexts of the school; it is not simply a function of what a school principal, or indeed any other individual leader, knows and does." The concertively aligned conduct which exemplifies this stretching is evident in a number of ways and in the accomplishment of numerous tasks. These may be regular and anticipated (e.g., budget meetings, staff appraisals) or unanticipated (e.g., crises, major problems), and they vary in scale, complexity, and scope.

One way is when sets of two or three individuals with differing skills and abilities, perhaps from across different organizational levels, pool their expertise and regularise their conduct to solve a problem, after which they may disband. These occasions provide opportunities for brief bursts of synergy which may be the extent of the engagement or the trigger for ongoing collaboration. Burns (1996, p. 1) cites the example of a person who, "because of certain motivations of her own combined with a certain self-confidence, takes the first step toward change, out of a state of equilibrium in the web [of relations]" and triggers interactions which may later crystallise into a routine.

3.4.2. Intuitive working relations

In the second instance, intuitive understandings are known to emerge over time when two or more organization members rely on each other and develop a close working relationship. In this instance, leadership is manifest in the shared role space encompassed by their partnership. It is the working partnership as a focal unit which is attributed with leadership by colleagues, and the partners are aware of themselves as co-leaders. Fondas and Stewart's (1994) notion of a role set, which encompasses the dynamic interplay of the role perceptions and expectations of set members, is helpful here. Shared roles emerge when set members capitalise on their opportunities for reliance on others (e.g., by balancing each other's skill gaps) or because they are constrained to do so (e.g., due to overlapping role responsibilities). Intuitive working relations are analogous to intimate interpersonal relations (e.g., successful marriages and friendships), and two or more members act as a joint working unit within an implicit framework of understanding. Gabarro (1978, p. 294) (see also Gabarro, 1987) found that the influence of one person on another in such relations was "very much dependent on how much that person was trusted by the other."

3.4.3. Institutionalised practices

The third concertive form of distributed leadership can be seen in the tendency to institutionalise formal structures. Commentators acknowledge that structural relations in organizations are formalised either by design or by adaptation. In the former case, new structures may be mandated. Dissatisfaction with existing arrangements can often stimulate the search for new design elements. Greenleaf (1977, p. 62) (see also Miller, 1998, p. 22) provides the example of *primus inter pares*. This is a leadership group headed by a first among equals, or a leadership team "of equals with a primus," instead of the hierarchical system of "the lone chief atop a pyramidal structure" typical of many organizations.

Greenleaf illustrated his point with the example of the office of the university president, which appears to be a one-person chief but is not in practice. "With regard to the essential work of the university—teaching students—the president is *not* the chief," but the establishment of a "council of equals," Greenleaf (1977, p. 77, original emphasis) said, would remove any ambiguity.

In the latter case, new elements may be grafted onto existing arrangements or managers may try to regularise informal relations. An example would be the temporary task force or team cited earlier, which is a concertive mechanism for pooling distributed capacity. A derivative of it may be incorporated into an organization's formal framework of governance. Regardless of how and why practices are institutionalised, concertively acting units can be the focus of colleagues' attributions of leadership.

3.5. Conjoint agency

These three forms of concertive action represent successive stages in a process of institutionalisation. In each case, the agents constituting the membership of the units act conjointly. Conjoint agency means that agents synchronise their actions by having regard to their own plans, those of their peers, and their sense of unit membership. Conjoint agency entails at least two processual components. The first is purely internal to the concertive unit. This is the experience of synergy, in which, as Follett (1973, p. 162) says, each unit member "calls out something from the other, releases something, frees something, opens the way for the expression of latent capacities and possibilities." The second is reciprocal influence, which is both internal and external in its effects. Reciprocity denotes the influence of two or more parties on one another and it occurs in a manner akin to a virtuous cycle or zigzagging spiral. Here, A influences B and C, and is influenced in turn by them (i.e., A≶B, A≶C, and also B≶C) with each person subsequently bearing the accumulated effects of successive phases of influence, as they begin influencing one another once again. The internal relationship of the conjoint agents is one of reciprocal influence. And in their relations with their organizational peers, who attribute leadership to them as focal units, conjoint agents both influence colleagues and are influenced in return. Such reciprocal or collective influence, for example, is central to the idea of "team leadership" (Sivasubramaniam, Murry, Avolio, & Jung, 2002, p. 68).

This conjoint agency, which is the defining attribute of concertive action, differs analytically and contractually from Coleman's (1990) idea of conjoint authority. In conjoint authority relations, individuals unilaterally transfer the right of control over their actions with the expectation of achieving benefits. The transfer is undertaken voluntarily on the presumption of common interests between an individual and the new controller, so that in a conjoint authority relation, "the superordinate's directives implement the subordinate's interests" (Coleman, 1990, p. 74). An example is the decision to join a trade union. Conjoint agents, by contrast, do not necessarily decide to act concertively to pursue common interests—although their interests may be furthered by coordinated effort—and their collaboration entails no alienation of rights and exchange of authority.

To the extent that conjoint agency is contractual, the contract is a psychological bond (through synergy) which strengthens a coincidence of effort, goals, and resources in the

pursuit of mutually agreed ends. On the other hand, the work of conjoint agents is conducted within a framework of authority relations secured by an employment contract. Because this legal foundation defines agents' formal roles, it affects conjoint agency relations by shaping the synergies experienced (see below).

4. Distributed leadership properties

The principal change in the technical side of the division of labor, which has produced an increased incidence of conjoint agency, is networked computing. On the one hand, networked computing creates complex, information-rich, working environments which prioritise computation, scanning, and search routines as firms and human service organizations reposition themselves in fast-paced, fiercely competitive markets. On the other hand, networked computing bridges traditional barriers to simultaneous collaboration (e.g., distance, different time zones, geographic separation) between separate organizational units (Committee on Human Factors, 1990, p. 5): hence, the notion of CSCW. Given that it exacerbates the volume and scope of fragmented and dispersed knowledge noted by Hayek (1945, p. 519), increased environmental complexity provides the impetus to devise alternative modes of articulating the flow of work, in particular, the redefinition and reintegration of tasks.

Work articulation is part of the more inclusive and generic problem of work design and has been defined by Strauss (1988, p. 164, original emphases) as "the overall process of putting *all* the work elements together *and* keeping them together." This process entails "the specifics of putting together tasks, task sequences, task clusters—even aligning larger units such as lines of work and subprojects—in the service of work flow." It is during work rearticulation that new forms of interdependence and coordination emerge.

4.1. Interdependence

To be dependent is to be constrained from autonomous task execution, with interdependence meaning reciprocal dependence between two or more organization members. Interdependence is manifest in two main ways. First, members' responsibilities may overlap. Second, their responsibilities may be complementary.

Overlapping interdependent role-related conduct occurs due to mutual needs for information and support (Stewart, 1991b, p. 128). A consequence of role overlap is redundant effort. Heller and Firestone (1995, p. 66) found that in eight US elementary schools, leadership was displayed by a number of people "sometimes in a jointly coordinated manner and sometimes with relatively little communication." A virtue of redundancy, however, is that it provides mutual reinforcement, for "the more of each [leadership function] that is done, the better, and doing one helps accomplish others" (Heller & Firestone, 1995, p. 83). A second advantage of role overlap is that it reduces the likelihood of decision errors, because when two or more people share roles they tend to cross-check each other's performance.

Complementary interdependent role behavior was a strong feature of the working relations between three members of an executive role constellation in a medical psychiatric hospital

(Hodgson, Levinson, & Zaleznik, 1965). Here, complementarity was advantageous because it enabled the interdependent executives to capitalise on the range of their individual strengths. Role complementarity operates at two levels, the material and the emotional. First, role set members rework the physical differentiation of tasks to create a pooled resource of skills and attributes. By capitalising on their particular competencies, each person performs specialised labor in a concerted approach to task accomplishment. An added advantage of specialisation within a role set is that, while members rely on the strengths of their peers, they enhance their lesser skills through frequent shared talk and observation of each other in a range of venues. Second, because each person shares the effects of successful and unsuccessful collaborative effort, role set members also experience common emotions. Such negotiated working relationships cement the trust conducive to a nonthreatening emotional climate and peer support.

The significance of both forms of interdependence is twofold. First, the more comprehensive the breadth of the task interdependence among conjoint agents, the greater the difficulty, as Simon (1991, p. 33) notes, of measuring "their separate contributions to the achievement of organizational goals." Second, the greater the extent of organization-wide interdependence, the greater the density of the reserves of overall leadership capability. And density, notes March (1984, p. 29), is what "makes an organization function well."

4.2. Coordination

Coordination means "managing dependencies between activities" (Malone & Crowston, 1994, p. 90) and encompasses the design, elaboration, allocation, oversight, and monitoring of the performance of an organization's technical core. The particular coordination mechanisms utilised, singly or in combination, vary with the interdependencies and activities to be managed, and the extent of their routinisation. Coordination arrangements include the personnel, resources, materials, trajectories, tasks, and output required to complete activities. The range of coordination mechanisms includes scheduling (e.g., synchronising of practices), sequencing (e.g., task alignment), planning, bidding (e.g., by internal cost centres), standardising (e.g., units of resource, quality control), information management, and consultation and communication.

Coordination patterns in diverse communities of practice change. At "Alinsu," a medical insurance firm, for example, coordination of the interdependent work of claims technicians and claims processors evolved in search of a requisite mode of engagement. Initially, technicians working with processors were thought to prejudice consistency of technical advice, but their subsequent segregation isolated technicians and caused work overload (due to indiscriminate advice referrals). Clustering of both groups in a common work area eventually balanced consultation with uniform information provision (Wenger, 1999, pp. 116–117).

Work coordination may be either explicit, as at Alinsu, or implicit. Explicit coordination mechanisms are stipulated in the duty statements based on managers' employment contracts. In reality, however, a considerable amount of work coordination is implicit and informal. Thus, "secretaries on research projects are commonly regarded as invaluable, if usually unsung, heroic coordinators" (Strauss, 1988, p. 169). Implicit coordination occurs because

role definitions misidentify or fail to anticipate the nature and scope of the exigencies of work performance. An analysis of a job's history would reveal the normalisation of implicit coordination as a tacit component of routine work. Such normality fuels the common impression that things get done automatically, with the irony that "the better the work is done, the less visible it is to those who benefit from it" (Suchman, 1995, p. 58). Despite their invisibility and gendered subordination in serving the career interests of (mostly male) managers, secretaries' relations with managers illustrate role interdependence, because secretaries are extensions of a boss's working capacity (Golding, 1986, pp. 101–102).

Just as the conventional discourse of office work glosses these realities of secretarial practice, so the rhetoric of leader–followership obscures pressures conducive to distribution. The problem of coordination, where the bottom line in expanding open-ended information environments is Hayekian dispersal, is less one of hierarchical consolidation of knowledge, than one of "those 'lower down' finding more and more ways of getting connected and interrelating the knowledge each one has" (Tsoukas, 1996, p. 22).

5. Towards a taxonomy of distributed leadership

Examples of intuitive working relations and institutionalised practices are presented in a taxonomy of distributed leadership (Fig. 1).[1]

5.1. Status of the taxonomy

It is important to be clear about the status of the illustrations as examples of distributed units of analysis. While the discussion to this point has emphasised the importance of leadership as an attributed status, not all of the authors of the work cited considered their subject matter from within a leadership framework and, of those who did, few defined leadership in attribution terms. In a handful of cases (certainly Denis, Lamothe, & Langley, 2001; Denis, Langley, & Cazale, 1996; Gronn, 1999; Hodgson, Levinson, & Zaleznik, 1965; Powell, 1997; and almost certainly, George & George, 1964; Newton & Levinson, 1973), the evidence provided by the authors suggests that it was the holistic units of analysis (i.e., sets of concertively acting agents) which were ascribed with leadership, not just individuals. Further, the evidence of internal and external reciprocal influence is unevenly reported across the case studies. For these reasons, the later discussion of internal relations among the conjoint agents is restricted to synergy.

There are three other features to note. First, the taxonomy distinguishes between jointly authored work performed by bodily co-present agents in close physical proximity, and collaborating agents dispersed across a work site or over a number of sites. The former is defined as *co-performed* work and the second as *collectively performed* work. Important means of facilitating collective work performance include video-conferencing and electronic

[1] Instances of spontaneous collaboration have been omitted due to lack of space.

Concertive Action	Mode of conjoint agency: Co-Performance			
	2-member form	3-member form	4-member form	5>-member form
Intuitive Working Relations	Chitayat (1985) George & George (1964) Powell (1997) Stewart (1991a & 1991b) Heenan & Bennis (1999)	Hodgson *et al.* (1965)		
Institutional -ised Practices	Doyle & Myers (1999) Zainuíddin (1981)		Murnighan & Conlon (1991) Newton & Levinson (1973)	Shapin (1989) Vanderslice (1988) Wallace & Hall (1994) Hall & Wallace, 1996

	Mode of conjoint agency: Collective Performance			
	2-member form	3-member form	4-member form	5>-member form
Intuitive Working Relations	Gronn (1999)			
Institutional -ised Practices			Birnbaum (1992) Denis *et al.* (1996 & 2001)	Brown (1989) Brown & Hosking (1986)

Fig. 1. A taxonomy of distributed leadership.

group mailing. As yet, however, the full implications of the new group sizes and boundaries, and the patterns of influence and identity norms facilitated by synchronous and asynchronous electronic systems are unclear (although see Finholt & Sproull, 1991).

Second, in the examples cited, the collaborating agents are mostly individuals but occasionally individuals and groups in coalition. Third, in each part of the taxonomy, two criteria are used to distinguish the focal units. The first is membership size. To enhance the fine-grained analysis of interdependence, the second of the Committee on Human Factors' (1990, pp. 38–47) distinctions between *two-member* and *multimember* distributed work systems has been subdivided into *three-*, *four-*, and *five or more-member* units. While the exact numerical threshold in face-to-face groupings at which the intensity of the interpersonal emotions and norms changes character is unclear, additions and subtractions affect the interplay of small numbers significantly. Further, numerical increases trigger concerns with membership identity. While the aggregated skills and values-base are enlarged and diversified, increased membership means more energy is expended on the maintenance of a sense of collective definition. The second criterion is the location of the unit's membership in relation to a range of factors

including time, place, distance, and culture. These factors either constrain or enable particular modes of coordination among unit members and their capacity to articulate work.

5.2. Other features of the taxonomy

There are some important points to note regarding the sample. First, the selection is arbitrary, rather than exhaustive, in that the examples are known by the author to illustrate aspects of the actual negotiated division of leadership labor between agents. In the co-performance part of the taxonomy, for example, the possibilities opened up by the four-member and five or more-member cells are numerous and include such important membership units as committees and teams. Apart from one or two cases, however, these have been excluded, mainly due to widely varying membership sizes.

Second, in respect of levels of analysis, the examples are skewed towards Hunt and Ropo's (1995) system and organizational domains and formal incumbencies. Finally, the line between intuitive and institutionalised action is acknowledged as unclear, and is partly dependent for its validity on assumptions of the agents and their peers about contextualised working practices. Moreover, the distinction elides the matter of structural transition and the formalising of emergent conjoint agency relations.

With these caveats, the division of labor between individuals and sets of agents summarised in the taxonomy is as follows:

Co-performance—intuitive working relations:

- part-time board chairs and full-time CEOs: Israeli companies (Chityayat, 1985), and UK district health authorities (Stewart, 1991a, 1991b)
- heads of state and informal advisers: US President Woodrow Wilson and Colonel Edward Mandell House (George & George, 1964)
- heads of government and deputies: former Australian Prime Minister, Gough Whitlam, and Deputy Prime Minister, Lance Barnard (Powell, 1997)
- full-time CEOs and COOs, and sports coaches and deputies: US corporations and sports teams (Heenan & Bennis, 1999)
- medical administrators: a US psychiatric teaching hospital (Hodgson, Levinson, & Zaleznik, 1965)

Co-performance—institutionalised practices:

- co-principals: an Australian Catholic secondary school (Doyle & Myers, 1999)
- dual control clergyman presidents and headmasters: colonial Australian Methodist schools (Zainu'ddin, 1981)
- musicians: UK string quartets (Murnighan & Conlon, 1991)
- health professionals: relations between a management group and clinical research teams in a US psychiatric hospital ward (Newton & Levinson, 1973)
- scientists and technicians: research laboratory of 17th-century English chemist, Robert Boyle (Shapin, 1989)

- worker cooperative members: a US restaurant collective (Vanderslice, 1988)
- school principals and senior management teams: English secondary schools (Hall & Wallace, 1996; Wallace & Hall, 1994)

Collective performance—intuitive working relations:

- school heads and heads of campus: an Australian multicampus boys boarding school (Gronn, 1999)
- university governors, presidents, managers, and faculty: US universities and colleges (Birnbaum, 1992)
- boards, CEOs, medical councils, and health care professionals: Canadian provincial hospitals (Denis, Langley, & Cazale, 1996; Denis, Lamothe, & Langley, 2001)

Collective performance—institutionalised practices:

- members of social movement organizations: UK women's centres (Brown, 1989; Brown & Hosking, 1986)

5.3. Accomplishing conjoint agency

The two distinguishing features of conjoint agency cited earlier were interpersonal synergy and reciprocal influence. While the varying purposes of the bulk of the 21 studies cited preclude meaningful conclusions about reciprocal influence, two main types of synergies are worthy of comment: formal and informal. Formal synergies are based on role incumbency while informal synergies are anchored on personal relations (e.g., friendship). Formal synergies include four subtypes: cross-hierarchy, trusteeship, parity of relations, and separation of powers (Fig. 2). Summary detail is used to contrast the dynamic features of each type.

Synergies	
Formal	**Informal**
Cross-hierarchy Trusteeship Parity of relations Separation of powers	Friendship

Fig. 2. Distributed leadership synergies.

5.3.1. Cross-hierarchy

Cross-hierarchical synergies entail negotiation of role boundaries. Agents negotiate their role boundaries either by blurring or by expanding them.

Role blurring occurred in the role constellation of three senior hospital psychiatrists depicted by Hodgson, Levinson, & Zaleznik (1965, p. xii). This executive triumvirate operated as "a relatively integrated whole" and displayed role–task specialisation, differentiation, and complementarity. Complementary specialisation allowed each man to act as he preferred and as he was best equipped, within a jointly agreed-upon framework of activities in pursuit of the interests of the hospital. Extensive role blurring meant that "each member of the system could, in part, impose his own personality on the system," but there was "a limit to the extent of any one individual's control" of that system (Hodgson, Levinson, & Zaleznik, 1965, p. 287).

Four factors are likely to account for the depth of trust in role constellations and couples: shared values, complementary temperaments, requisite psychological space, and previous experience of collaboration (Gronn, 1999, pp. 54–57). These factors were evident in the "odd couple" formed by J.R. Darling (headmaster) and E.H. Montgomery (master in charge), in the foundation of the Timbertop campus of the Geelong Grammar School in Australia in the early-1950s. Despite the fact that they were separated by 200 miles, and (given the initial absence of a telephone connection) relied mostly on the postal service for their communications, the two men evolved a close working relationship in which Montgomery made on-site decisions within a broad framework reflecting his chief's wishes. Darling depended on Montgomery for the success of his scheme, which he described as "the very apple of my eye" (Gronn, 1999, p. 51). Where one or more of these four factors is absent, couples fail to develop this level of trust and merely "bring out the worst in each other" (Krantz, 1989, p. 164).

By contrast, boundary expansion requires the preparedness of organizational superiors to include junior colleagues within the locus of their authority. Senior management teams (SMTs) in UK secondary schools, for example, are established entirely at the discretion, and on the initiative, of school heads (Wallace & Hall, 1994). Because the contractual authority relationship here is disjoint, rather than conjoint, expansion of the locus of authority may be anxiety-inducing for subordinates and superiors. Unlike conjoint authority, in disjoint authority relations, a subordinate's interest is realised when compensation is paid, rather than through a superior's directives (Coleman, 1990, p. 74). The UK heads' dilemma was that they exercised sole authority for overall operations, and responsibility for student learning and the work of teachers, yet, within a policy framework of local management, they depended on SMTs to perform the work. Trust between team members was only possible through mutual consent, with the result that heads were vulnerable and dependent on their subordinates.

Thus, while it was "up to the head to provide conditions which encourage all members to contribute fully," the interchangeability of team leadership and followership roles meant that "other members must also facilitate the teamwork process." The strength of teamwork depended on each member's capacity to cope with these dualities (Hall & Wallace, 1996, p. 304). Teaming through boundary expansion is a potentially risky strategy: teams that

succeed bolster a superior's credibility, but failing teams strain an organization's authority relations. For these reasons, SMTs in schools were akin to marriages, in which "there were high and low points and sometimes divorce hovered uncomfortably in the wings" (Hall & Wallace, 1996, p. 300).

5.3.2. Friendship

Synergies grounded in friendships are noncontractual, and therefore entail neither conjoint nor disjoint authority. Depending on the degree of calculation, friendships capitalise on the advantages of mutual attraction and compatible personal attributes.

Career- and work-based friendships are common. They cut across or are absorbed into organization members' role relations. A friendship which became the basis for professional working relations was Woodrow Wilson's attachment to Colonel House. House was an inveterate schemer, political kingmaker, and playmaker. The two men hit it off at their first meeting in late-1911, but throughout their friendship House studiously avoided Wilson's offers of formal positions. Instead, he noted in his diary how he "much preferred remaining free to advise the President about matters in general."

The need to shun official positions was essential, House once confided, "if he wanted to retain his personal influence over Wilson" (George & George, 1964, p. 110). His goal was to be part of his president's "personal sphere of power" yet, even though he studied Wilson's character closely, he once said that he "could never really understand him" (George & George, 1964, p. 124). As well as mutually shared affection, the two men's friendship was fuelled by self-interest and ambition on both sides. A grounding in some of the factors associated with trust in couples and constellations would appear to be necessary if work-related friendship synergies are to be immune to such calculus.

5.3.3. Trusteeship

The essence of trusteeship, according to Greenleaf (1977, p. 103), is an oversight of executive power, to check the "corrupting influence" of power on executives and to prevent harm to "those affected by its use." To that end, the ideal synergy would be one in which trustees, and in particular, their board chairs, were proactive, rather than reactive, in their stewardship of organizations.

Despite the "legal fiction" that boards are the agents of stockholders, "they are most often the creatures of top management" (Coleman, 1990, p. 563), an assessment confirmed by Chityayat's (1985, p. 69) study of working relations between CEOs and chairs. In the public sector, however, the situation may approximate more closely the ideal depicted by Greenleaf. In public health in the UK, the most common pattern of relations between board chairs and district general managers (DGMs) was found to be "mutual dependence," analogous once again to a marriage (Stewart, 1991a, p. 518). The creative tension in their engagement stemmed from the chairs' need for information, and the DGMs' reliance on their chairs for the conduct of the health authorities and the interpretation of the chair's role. Both individuals shared the leadership of public health in their districts. As with the negotiated division of labor—both psychological and task-related—in Hodgson, Levinson, & Zaleznik's (1965) constellation and Gronn's (1999) couple, the strength of the DGM–chair synergy was anchored in the interplay

of perceptions and expectations within the role set. In particular, in DGM–chair partnerships, the success of working relations depended on whether one of the two conceived of the relationship "in that way" and "which of them should undertake certain kinds of work" (Stewart, 1991a, p. 525).

5.3.4. Parity of relations

Two alternatives to role sharing by crossing hierarchical boundaries are to dispense with hierarchies (parity of relations) or to establish multiple competing institutional structures (separation of powers). Each form generates its own unique synergy.

Three studies in the taxonomy illustrate different dimensions of, and tensions inherent in, the distributed leadership of different sized membership groups governed by parity. As group membership numbers increase, group incentive structures rely on greater amounts of zeal to enforce norms (Coleman, 1990), guaranteeing action in concert. A musical string quartet, the smallest of these units, is a self-governing interdependent work group whose work "is done only as a unit" in which members use "each other's outputs as their own inputs" (Murnighan & Conlon, 1991, p. 165). The incentive to perform as a unit is that members share a common interest in excellence and fidelity to a composition while striving for a distinctive interpretation of a musical score.

Performance tensions emerge from coping with two paradoxes. The initial paradox is the first violinist's duality of role as a musician who provides a lead, as the publicly acknowledged ensemble leader, but who, likewise, is just one fourth of a quartet. Another paradox concerns the second fiddle, who may be equally proficient but is subordinate in status to the first violinist and also only one fourth of a quartet. Next in ascending membership size is the Moosewood collective. This 15-year-old example of conjoint authority comprised 18 members who severed the link between leadership and leaders, by institutionalising turn-taking, and rotating all tasks and responsibilities. In order to abolish followership and to be "leaderful," thereby institutionalising leadership without bosses, policy and operational decisions at Moosewood were made consensually (Vanderslice, 1988, p. 685). The durability of collective self-management, however, is really tested in large social movements which strive for "enough order, but not too much" (Brown & Hosking, 1986, p. 73), in seeking to avoid the twin evils of elitism and structurelessness. Yet the rejection of fixed roles, adoption of minimal structures, encouragement of the participation of all, resort to rotating meeting chairs, and achievement of solidarity through networking entailed by walking this fine line still require skilled performers. Sometimes a sufficiency of these emerges, but on other occasions it does not. The vitality and longevity of such social movements are dependent on a successful combination of spontaneous collaboration and the numerical version of distributed leadership distinguished at the outset of this article.

5.3.5. Separation of powers

With the exception of friendship, the synergies considered so far have been the products of either vertical or horizontal systems of authority. A different kind of synergy is in evidence, however, when authority is segmented, as in a separation of powers arrangement.

The segmentation, rather than the concentration, of authority creates a "pluralistic domain" (Denis, Lamothe, & Langley, 2001, p. 809) of multiple agents, pursuing different objectives in fluid relationships. This situation generates qualitatively different kinds of tensions. These are evident in boundary disputes between separate authorities over jurisdictional ambiguities and in the alliances pursued by different sets of agents. An example of the former is the conflict concerned with the competing priorities of research and care which arose between a psychiatric ward management group and three clinical teams in a hospital ward, and the question of whether the ideologies of research and care were even compatible (Newton & Levinson, 1973).

An instance of the latter tension is found in the numerous sources of leadership in universities, and in the power balances that emerge periodically between different constituencies within an at times unwieldy university structure (e.g., departments, faculties, colleges, professorial boards, senates, councils, and offices of presidents). One result, Birnbaum's (1992, p. 124) research found, was that "institutions could improve even when their presidents were not considered particularly effective." An important long-term consequence of a separation of power arrangement is that strategic change becomes "sporadic and unpredictable," as Denis, Lamothe, & Langley (2001, p. 810) discovered in an investigation of Canadian health care. With provincial authority for overall health care delivery shared between CEOs, hospital boards, physician-elected medical councils, and a range of other clinical health professionals, significant change depended on "a tightly knit leadership group that can act in concert" (Denis, Lamothe, & Langley, 2001, p. 817). A decade's research, however, revealed shifting institution-based patterns of collective leadership of varying strength by different combinations of actors, resulting in sporadic achievement of change.

6. Implications of distributed leadership

The argument of this article has been that leadership would be better served by understandings more closely connected to the realities of workplace practice. To that end, in developing Gibb's suggestion of distributed leadership, the discussion has concentrated on the division of labor and extended the existing unit of analysis to include the leadership of agents acting conjointly. Two implications follow.

6.1. Leadership and management

The first is to caution against hasty assumptions that managers are automatically leaders or that only managers lead. This implication is especially important for those commentators who utilise interchangeable leader–follower and superior–subordinate dyads. Among proponents of multilevel analysis, for example (see below), the attribution of leadership as a status contingent upon others' judgments is acknowledged explicitly in some discussions of superior–subordinate relations (e.g., Dansereau et al., 1995, p. 441), whereas in others (e.g., Klein & House, 1995, p. 190), terms like "leader" and "head" (a managerial role) are conflated. But if, as has been suggested, leadership is attributed influence, and potentially attributable to any individual or concertive unit then, despite the preponderance of

managerial formations in the taxonomy, managers are no different from those whom they manage, for they too have to be attributed with leadership status.

First and foremost, managers are legal agents of owners or employers for, unlike leadership, management is defined by an employment contract. Employment contracts enshrine disjoint authority relations in which employees accept the authority of an employer's agent and obey, in return for guaranteed remuneration (Coleman, 1990, pp. 79–81). Generally, employees will accept managerial directives provided these are within their "zone of indifference" (Barnard, 1982, p. 167). If, however, they can be convinced to regard their managers as leaders, employees are not only likely to comply but also to make value-added commitments. They may, in fact, take little convincing of leadership (Calder, 1977, p. 191):

> The fire chief who goes with a group of firemen into a burning building probably will be perceived as a leader even if going into a building is his duty.

In the articulation of work practice, the conflation of management and leadership confuses the division of rights with the division of labor. The authority to prescribe a division of labor is not the same as the actual conduct which comprises that division of labor. Employees may expect their managers to lead, but as for any other organization member, commentators need to adduce evidence of leadership attributions.

6.2. Leadership and training

Many factors contribute to successful learning from training including, presumably, a working familiarity with the possibilities of conjoint agency and concertive action. Stewart's (1991b) findings about role sharing in the UK health sector illustrate the point. Role sharing between DGMs and board chairs prompted Stewart (p. 136) to interpret a managerial job, not as a slot filled by an incumbent performing prescribed duties, but as "flexible space that is only partially held by any one job holder." Stewart chose flexibility because job boundaries were shifting, and were partially occupied because "there is more work that can be done in many management jobs than any individual will have the time, perception, interest and sometimes the ability to do."

Role sharing was an antidote to managers' selective attention and it occurred "because two or more individuals can make good use of their particular interests so that together they make a more effective contribution than they would separately." Training with a view to equipping individuals to cope with flexible space would require "a strategic view of what needs doing and the ability to develop complementary relationships," but its inclusion in programs may not yet be extensive. In schooling, for example, where accreditation standards for school leaders are increasingly popular, standards are framed as expectations of individual jobholders. One set of standards, for example, says: "A school administrator is an educational leader who promotes the success of all students by. . .," and thereby perpetuates the conflation of leadership and management. Ironically, the commitment to individual job-holding in this instance occurs despite a public espousal of distributed leadership by the standards sponsoring agency (Gronn, in press).

7. Discussion

The preceding discussion has some important consequences for the development of theory, particularly with respect to the reliance of commentators on units and levels of analysis, and for future research.

7.1. Levels and units

These two terms designate organizational phenomena associated with forms of organizational interaction and conduct. The earlier suggestion was that in leadership, theoretical work on units lagged behind similar developmental work on levels of analysis. Consideration is now given to some aspects of the relation between levels and units. Although the literature on levels in organizational behavior and leadership is extensive, space permits attention to just a few of the more salient points.

In most discussions of levels, the authors' overriding concerns are conceptual and methodological, whereas with units the key issues are ontological. The idea of a level tends to be used in one of two senses by leadership commentators, both of which are based on hierarchical representations of organizations. First, there is Hunt's (1991) and Hunt and Ropo's (1995) multiple organizational level leadership model which divides leadership functions into three ascending strata of complexity of demands on leaders. Here, for the purpose of representing the totality of leadership processes, "level" is based on Jaques' (e.g., Jaques & Clement, 1995) notion of time span of discretion, with each level encompassing broadly grouped organizational functions.

Second, there are multilevel approaches whose purpose is to disaggregate the construct "organization" into sublevels (typically, individual, dyad, group, etc.) for purposes of data procurement and aggregation, measurement of leader effects, and application of findings. In each case, the agent of influence is an individual leader, although Hunt (1991, p. 37) and Hunt and Ropo (1998, p. 356) make allowances for collective formations to be subsumed under "the leader" designation, and levels are articulated within the conventional leader–follower dualism—i.e., the assumption is that there is one leader (or "superior") and a number of followers. In the second approach, however, the recipients of influence, designated by the construct "followers" (although sometimes by "subordinates"), are disaggregated according to various demographic (e.g., age, gender), identity (e.g., self-concept, efficacy, values), positional (e.g., distance from the leader), perceptual, and other measures.

The aim is to ascertain the degree of independent, heterogeneous, and homogeneous responses to leader stimuli on a number of measures (e.g., the extent of individualised leadership), the level and extent (although not the mechanics of the process) of the diffusion of leader effects, and to draw conclusions about the varying quality of leader–follower or superior–subordinate relationships.

Conceptually, the idea of "level" satisfies two purposes. First, it partitions a theoretical construct (i.e., organization) into subcomponents for the purposes of reference and representation. Second, levels specify target applications of theory. In some discussions (e.g.,

House, Rousseau, & Thomas-Hunt, 1995, pp. 73–74; Klein, Dansereau, & Hall, 1994), however, levels are treated as synonymous with units, and the commonly invoked ascending series of individual–dyad–group–organization is used in reference to units of analysis as well as levels. At least three senses of "unit" are confounded in the literature: unit of measurement, unit of work, and unit of analysis. As units, ascending designations like individual–dyad–group–organization have, at best, analytical rather than entitive status for, strictly speaking, these are measurement units (i.e., abstract nested parts and wholes which are the targets of research instrumentation). By contrast, the notion of units of work refers to real-world objects which are the outcome of the processes of differentiation and reintegration that are integral to particular contextualised divisions of labor (e.g., the HRM department of the Melbourne branch of X bank). In this sense, units of work are "task-oriented subsystems" (Miller, 1959, p. 247); i.e., managerially defined and sanctioned sets of operations which reflect the transition from simple to complex processes of production. In short, these are creatures of the division of rights distinguished earlier.

The idea of a unit of analysis is different again. Here, unit refers to the idea of a bounded set of elements comprising the entity which is the focus of research. Contrary to Freeman's (1978, p. 337) observation, however, units of analysis need not be "unambiguously separable from each other and from their environments in time and space," for the criteria for unit inclusiveness may be fluid. In contrast with this traditional static view, Mandelblit and Zachar's (1998, p. 230, original emphasis) notion of a dynamic unit in cognitive science as "more flexible, context-dependent, and has fuzzier boundaries based on a general *pattern of correlation* across its elements," is helpful.

This dynamic understanding encompasses the overall unity or holism created by combining the constituent properties while simultaneously recognising the emergent nature of those properties and the unit. In respect of the division of labor, therefore, the idea of the unit of analysis, dynamically defined, includes not only the officially defined units of work noted by Miller (1959), but the totality of the unofficial and informal work practices, including those understood tacitly but rendered invisible as part of the normalisation of work practices which was referred to earlier in the article. For leadership, the implications of a dynamic understanding of the unit of analysis include a view of leadership as less the property of individuals and more as the contextualised outcome of interactive, rather than unidirectional causal, processes (Hosking & Morley, 1991, pp. 239–261). The fluidity of the spontaneous collaboration and intuitive working relations distinguished earlier, along with the continuity of workplace relations implied by the idea of institutionalised practices, accords with this processual understanding of leadership. But what are the implications for research of a process view of leadership?

7.2. Future research

In a recent review of historical developments, Hunt (1999, p. 139) suggests that the field of leadership is currently in stage two ("concept evaluation/augmentation") of a three-stage concept evolutionary model, with a number of new approaches in the first stage ("concept introduction/elaboration"), one of which is the topic of this article: "collective, distributive,

dispersed or relational leadership." In addition to Hosking and Morley, Hunt (1999, p. 138) is one of a growing chorus of voices (e.g., Conger, 1998a, 1998b; Parry, 1998) bemoaning the dearth of processual studies of leadership.

With the possibility of distributed leadership first raised more than four decades ago, a revised unit of analysis is long overdue. Although recent workplace restructuring has been the trigger for a reawakened interest in distributed practice, a number of studies in the taxonomy predate these developments, either in their subject matter or in their publication date. A key question, therefore, is whether distributed leadership is new or whether commentators are beginning to recognise a phenomenon which has always existed? On this point, Hodgson, Levinson, & Zaleznik (1965, pp. 391–392) raised the possibility that distribution may be inherent in the very nature of what it means to organize when they noted that a number of factors facilitate "the emergence of interlocking roles." These factors include the assignment of employees "to formally defined aggregates of individuals that prompt the interlocking of roles," required contacts with workplace peers, and the tendency for employees to gravitate to compatible colleagues. While the question of newness is moot and provides fuel for speculation, the comments of Hodgson, Levinson, & Zaleznik suggest that role interlocks among co-performing and collectively performing sets of agents constitute the key focus of research into leadership processes.

As regards process, the literature in the taxonomy raises more questions than it answers. With a few notable exceptions, evidence of the dynamics of role performance among the conjoint agents depicted in the studies, and between the agents and their colleagues within and across levels, and of the social construction processes by which concertively performing agents might have been attributed with leadership, is patchy.

At best, the discussion provided evidence of some of the necessary and sufficient conditions to be satisfied to facilitate productive synergies among agents. On the other hand, the absence of these data offers an exciting window of opportunity for qualitative, longitudinal field studies designed to capture "the richness and nuances of contextual variables and their influence on leadership" (Conger, 1998b, p. 81). This kind of research would inquire, inter alia, into the wider environmental and organizational circumstances governing the genesis and development of forms of distributed leadership, and the factors conducive to their duration and continuity. In respect of levels, it would also seek to account for the location of forms of distributed leadership and the frequency of their occurrence, and it would contour the scope and breadth of the properties they embody. Finally, from the conventional perspective of leadership as causal agency, and to the extent that informants' implicit theories construct the role of forms of distributed leadership as causally potent, such research would endeavour to assess the influence and impact of distributed forms on short- and long-term organizational performance.

On the other hand, to take a processual approach to leadership means to acknowledge that organization is as much a structural outcome of action as a vehicle for it, and that leadership is but one of a number of structuring reactions to flows of environmental stimuli. Indeed, other factors may substitute for leadership in the accomplishment of organization (Jermier & Kerr, 1997; Kerr & Jermier, 1978). To the extent that leadership does play a structuring role, however, the focus of field work would be on "influential 'acts of organizing'" which

"contribute to the structuring of interactions and relationships, activities and sentiments" (Hosking, 1988, p. 147).

An understandable reaction to what Hosking (1988, p. 150) termed top-down, "physicalist" views of organizations, when attending to the contribution of leadership to organizing, might be to counteract a structural emphasis by according open-ended degrees of freedom and choice to actors in socially constructing organization through their leadership. Such a reaction would be unfortunate, for structure, as Archer (1995, pp. 71–75) has noted, is always paramount in the duality of its interplay through time with agency. Inevitably, structures constrain the work of agents for structural outcomes mostly outlive their particular creators to preexist as contexts for succeeding generations of agents. Equally, however, structures are enabling and, as the intended and unintended outcomes of the accumulated deeds of numerous previous cohorts of structuring agents, they are both reproducible and transformable. In short, in the duality of structure and agency, "agential power is always restricted to remaking, whether this be reproducing or transforming our social inheritance" (Archer, 1995, p. 72).

While at one level, therefore, organization is evident in numerous cognitively derived representational media and tools—e.g., plans, budgets, forecasts, routines—which are the artifacts of collective learning and the products of organization members' collaborative efforts at problem-solving, at another level, organization is constituted by structured role relations. Yet, there is always the potential for existing sets of structured role relations to be redefined as a result of the culturally informed activities of combinations of agents. If so, then a key element in research into distributed leadership has to be structural uptake, or work which, as Conger (1998a, p. 80) suggests, "effectively documents the actual process from leader behavior to ongoing norm."

8. Conclusion

The argument of this article has been that, in the face of a dissonance between traditional constructs of leadership and the reality of the division of labor in leadership practice, the field of leadership would be more profitably served by a revised unit of analysis. Despite protestations that "there is no such thing as a detached, free-standing leader–follower role relationship," and that leadership is "but one part of the total accountability being discharged" by managers (Jaques & Clement, 1995, pp. 5, 39), however, the dominant unit of analysis continues to be the solo or stand-alone leader. But an unfortunate by-product of the presumption of measurable, causal influence exercised by solo leaders, as in currently popular transformational and charismatic theories, for example, especially the latter, is that "the organizational processes that ultimately determine effectiveness are seldom described in any detail" (Beyer, 1999, p. 325 and see Yukl, 1999, p. 288).

This article has suggested some ways in which the neglect of these processes might be rectified. In particular, the discussion concentrated on leadership rather than followership and revised the unit of analysis to include forms of distributed practice. Distributed leadership was shown to encompass not merely the structuring influence of numerous individuals, but three forms of concertively patterned and reproduced activity-based conduct, each representing

varying degrees of structural solidity: spontaneous collaboration, intuitive working relations, and institutionalised practices. A body of indicative evidence of distributed forms of leadership was reviewed. This review was confined to numerically small work groupings, and over 20 studies were used to provide a preliminary taxonomy of distributed leadership and to illustrate the constituent elements of distributed units, in particular, the core property of conjoint agency. Finally, some of the key assumptions informing a program of qualitative research into distributed work arrangements were discussed. Such research should either confirm or invalidate a range of potential co-performed or collectively performed synergies evident in forms of distributed leadership which include geographically dispersed couples, co-leaders and partners, triadic role constellations, and rotating leader systems. Moreover, research should advance understanding of the circumstances and factors which facilitate or impede participants' perceptions, acceptance, and expectations of distributed arrangements, and provide evidence of the nature and extent of workplace interdependence and reciprocities. In short, rather than continuing to rely on language which presumes a division of labor a priori, when distributed leadership becomes the unit of analysis, productive outcomes of research for the scholarly community are likely to include a revised discourse which accurately reflects the evolving division of labor in the workplace and analyses which are realistically aligned with practice.

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