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Low Heed in Organization Theory

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Abstract:
This essay borrows the construct of "heedful interrelating" from Weick and Roberts's (1993) study of aircraft carrier flight decks, and uses the construct to analyze the social processes that structure contemporary scholarship in organization theory. We argue that organization theory often operates as a low-heed discipline, in which scholars take minimal heed of the contributions of their fellows. This condition of low heed is revealed in several specific aspects of the discipline: lack of attention to testing previously published theories, lack of emphasis on replication of published empirical research, low standardization of construct definition and measurement, and a minimally developed division of labor between theorists and empirical researchers. We explore the causes of this low-heed state in contemporary organization theory, and we also enumerate some advantages of low heed in the discipline. We devote attention to the effects of low heed on the training of newcomers to the field, and we argue that doctoral education in organization theory is both an effect and a cause of low heed. Finally, we offer some suggestions for incorporating more scholarly heed into organization theory without destroying the major advantage of a low-heed discipline – freedom of inquiry. We also indicate how a cautious increase of heedful interrelating in organization theory might improve the perceived relevance of its research results for management practice.

Keywords:
organization theory; heedful interrelating; knowledge production; metaphors

INTRODUCTION

In 1993, Karl Weick and Karlene Roberts published a seminal article in which they developed a model of heedful interrelating in organizations.

Weick and Roberts (1993) used the operation of aircraft carrier flight decks to illustrate the process of heedful interrelating. They argued that heedful interrelating is critical to the functioning of a high-reliability organization – one that produces outputs dependably and with low variability – and pointed out that it consists of three conceptually distinct activities: contributing, representing, and subordinating. Actors make contributions to a system while representing that system in their own minds and subordinating their behaviors to the representation. The result of this is a heedfully enacted structure that can generate outcomes (e.g., recovering fighter aircraft on a flight deck) with high reliability. Weick and Roberts (1993) argued that the greater the heed with which contributing, representing, and subordinating are conducted, the higher the reliability of the organization.

In this essay we borrow Weick and Roberts's (1993) concepts of heed and heedful interrelating and transfer them to a different target domain by applying them to the academic discipline of organization theory. We argue that organization theory is a low-heed discipline in which scholars often take minimal heed of one another's contributions. Our use of the "low heed" construct is a metaphor designed to represent certain aspects of organization theory that function differently from Weick and Roberts's (1993) description of aircraft carrier flight decks. We believe that the metaphor of low heed captures many attributes of the social process of organization theory scholarship, but we do not take a prescriptive view of low heed in the discipline by arguing that it is necessarily a bad thing. Nor are we arguing that organization theory should function more like an aircraft carrier flight deck. We simply wish to use the metaphor of low heed to illuminate aspects of scholarly conduct in organization theory that might remain less visible without the metaphor. The insights that may be generated from the application of the low heed metaphor appear to be particularly relevant in light of the recent renewal of attention to the status of organization theory and to its relevance for representing twenty-first-century organizations (e.g., Ashkanasy, 2007; Daft & Lewin, 2008; Glick, Miller, & Cardinal, 2007; Greenwood & Miller, 2010; Pfeffer, 2007; Rousseau, 2007; Sitkin, 2007; Walsh, Meyer, & Schoonhoven, 2006).

We maintain that within organization theory low heed manifests itself in a lack of attention to the empirical testing of the propositions in previously published theoretical contributions (Hambrick, 2007; McKinley, 2010), a lack of emphasis on the replication of previously published empirical studies (Hubbard, Vetter, & Little, 1998; Neuliep & Crandall, 1991; Mone & McKinley, 1993), a lack of standardization of construct definitions and measures (McKinley, 2007; McKinley & Mone, 1998), and a minimally developed division of labor between theorists and empirical researchers. We also suggest that this low-heed state is caused by the discipline's lack of a commonly accepted representation of the phenomenon that scholars are studying. In other words, organizational scholars do not have a commonly received schema of the organization in its environment. Such a representation would enable scholars to

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subordinate their contributions to a depiction of the phenomenon of interest and therefore integrate them into a heedfully interrelating system that could produce knowledge outputs with some degree of reliability.

Weick and Roberts (1993) made it clear that low heed on aircraft carriers is quite dangerous and can result in expensive accidents. However, as we have considered the role of low heed in organization theory, we have come to believe that the discipline's low-heed state has both benefits and drawbacks. Among the benefits are freedom of inquiry, the development of innovative, intriguing discourses that are not bounded by a commonly shared representation of organizations and their environments, and the opportunity to use open-ended constructs (Astley & Zammuto, 1992; McKinley & Mone, 2003) as a source of discovery and scholarly reputation. In this paper, we focus on a discussion of these advantages, because the disadvantages of low heed in organization theory have been adequately covered in the previous literature (e.g., McKinley & Mone, 1998; Pfeffer, 1993). By emphasizing advantages, we position this paper as a novel contribution to the stream of literature on the current state of the discipline (e.g., Corley & Gioia, 2011; Glick et al., 2007; Greenwood & Miller, 2010; Newton, 2010).

In the remainder of this essay we elaborate the themes outlined above. We first contextualize our discussion by describing a series of debates in organization theory that extend from the publication of Burrell and Morgan (1979) up to the present day (see Astley & Zammuto, 1992; Donaldson, 1985; Glick et al., 2007; Jackson & Carter, 1991, 1993; Pfeffer, 1993, 1995; Van Maanen, 1995a, 1995b; Westwood & Clegg, 2003a). As we will show, these debates included heated discussions about the ontology of organizations, the appropriate epistemology for use in investigating them, and the question of "paradigm incommensurability" (Burrell & Morgan, 1979; Jackson & Carter, 1991). We devote attention to these debates to highlight the ways in which our essay differs from them and goes beyond them. Specifically, our essay and its use of the low heed metaphor are unique in emphasizing the details of research practice (for example, testing theories and utilizing constructs) rather than engaging with more lofty philosophical questions of appropriate ontology and epistemology.

After providing this contextualization, we offer a justification for transferring the metaphors of heed and heedful interrelating from the target domain in which Weick and Roberts (1993) used them to the domain of organization theory. We note that organization theory is conventionally described as a "language game" (Astley & Zammuto, 1992; Mauws & Phillips, 1995; Van Maanen, 1995a) or a "conversation" (Czarniawska, 1998; Huff, 1999). If the language game and conversation metaphors validly capture the character of organization theory, it makes sense to use the metaphor of heed to characterize the discipline as well. Language games may be played with greater or lesser heed, and conversations may be conducted in a heedful manner or in a manner lacking in heed. In this way, we are led to an insight about variation in heed across different language games and the possibility of variation in heed across different scholarly disciplines. Our argument is that organization theory occupies a low-heed position on that continuum.

Having contextualized our argument and justified our application of the metaphor of heed to organization theory, we then detail the specific manifestations of low heed in organization theory. We also describe the causes of the low-heed state of contemporary organization theory, and discuss the advantages of low heed in the discipline. Additionally, we articulate some of the consequences of low heed for training newcomers to the field. We conclude the essay by suggesting some ways in which heedful interrelating might be incrementally increased in organization theory without destroying the freedom of inquiry and creative use of constructs that currently characterize the discipline. We also discuss the implications of our argument for organization theory's capacity to inform the practice of management.

We believe that the application of the "low heed" metaphor provides an illumination of facets of organization theory that have not previously been made clear in the discussions cited above and in the literature on paradigm wars. In particular, the concept of low heed foregrounds the social and cognitive processes that underlie the operation of daily scholarship in organization theory. While the lack of a unified phenomenological representation in the discipline and the corresponding dearth of heedful interrelating may be seen as undesirable by some (e.g., Pfeffer, 1993), we believe it has advantages as well as disadvantages. In any case, all parties would likely concur that it is advisable to understand more about the social processes that govern scholarly work in the discipline. We believe that using the metaphor of low heed to analyze knowledge production in organization theory will help accomplish that goal.

PARADIGM WARS

More than 30 years ago, Burrell and Morgan (1979) published a book that was to have a far-reaching influence on the ontological and epistemological views that organization theorists applied to their subject of inquiry. The book was also a catalyst for a series of debates between theorists of different ontological and epistemological persuasions, the debates known today as the "paradigm wars". Drawing on the work of Kuhn (1970), Burrell and Morgan (1979) presented four different paradigms that in their view characterized social research and also organization studies. These were the well-known functionalist, interpretive, radical humanist, and radical structuralist paradigms. Burrell and Morgan (1979) derived these four paradigms by juxtaposing two underlying dimensions: an objective/subjective dimension that represented differences in theorists' ontological perspectives and epistemological assumptions; and a regulation/radical change dimension that captured varying perspectives on conflict and the stability of social structure. On the objective/subjective dimension, the objective pole was anchored by theories with a realist ontology that considered social phenomena (such as organizations) to be realities that are external to the observer. The subjective pole, on the other hand, identified theories with a nominalist ontology in which no social reality was assumed outside the meanings supplied to data by natives or scholarly observers (Astley, 1985). The regulation pole of the regulation/radical change dimension represented theories that espoused the prevalence and appropriateness of social stability, while the radical change pole referred to theories that focused on change and emancipation.

Thus, on the paradigm level, the functionalist paradigm included schools of thought that assume a stable external social reality, while the interpretive paradigm included schools that consider social entities as stable cognitive enactments. According to Burrell and Morgan (1979), these two paradigms account for most work in organization theory, but the radical humanist and radical structuralist paradigms, with their emphasis on conflict and emancipation, were also offered as viable spaces for organization studies work (see also Gioia & Pitre, 1990). Burrell and Morgan (1979) espoused a strong incommensurability thesis, arguing that the ontological and epistemological assumptions of the four paradigms were so different that it was impossible, and indeed undesirable, to integrate across paradigm boundaries.

The objective/subjective dimension that Burrell and Morgan (1979) articulated played a major role in a series of debates that unfolded after the book's appearance. If the reader will indulge another metaphor to accompany our central metaphor of heed, the objective/subjective division was like the fault line (Westwood & Clegg, 2003a) between two tectonic plates, a source of periodic intellectual eruptions. Immediately before one early eruption, Morgan and Smircich (1980) provided a detailed explication of the objective/subjective dimension, and Morgan (1980) drew from Burrell and Morgan (1979) to discuss the role of metaphor in organization theory. Morgan (1980) took the position that metaphors are both inevitable and helpful, and that specific metaphors form the basis of each school of thought populating the four Burrell and Morgan (1979) paradigms. The eruption began when Pinder and Bourgeois (1982) challenged Morgan's (1980) thesis, arguing against the uncontrolled use of metaphors in organization theory because of their ambiguity and their resistance to falsification. Pinder and Bourgeois (1982) were standing on the objectivist side of the fault line, and Morgan (1983) quickly replied to them from the subjectivist side. Morgan (1983) denied the possibility of controlling metaphors in administrative science, and opined that if one tried to weed out metaphors, the field would become "self-sealed". Bourgeois and Pinder (1983) then replied to Morgan (1983) with a version of the "defense of non-occurrence" (Sutton & Callahan, 1987): they stated that they had never said that all metaphors should be expunged, as Morgan (1983) claimed they had. Bourgeois and Pinder (1983) usefully pointed out that they and Morgan were operating with different philosophies of science, but beyond that conclusion, this debate led to little resolution about the ontological status of organizations or the proper role of metaphors in organization theory.

A second eruption along the objective/subjective fault line occurred when Donaldson (1985), writing from an objectivist position, authored a book-length response to several critics of organization theory (e.g., Silverman, 1970; Child, 1972). Donaldson (1985) provided a detailed rebuttal of these critics' largely subjectivist arguments, claiming to preserve organization theory for realist ontology and positivist epistemology. Donaldson's (1985) counterattack was then subjected to critical scrutiny in a 1988 symposium in Organization Studies. In that symposium, prominent organization theorists (Hinings, Clegg, Child, Aldrich, and Karpik) commented on Donaldson (1985). For example, Clegg (1988) engaged with Donaldson's (1985) points, but bemoaned professed misinterpretations of Clegg and Dunkerly (1980) by Donaldson (1985). Aldrich (1988) argued that Donaldson's (1985) concerns were unwarranted because the critics he (Donaldson) had singled out had been virtually ignored in citations in major organization studies journals. The other theorists in the symposium presented a variety of perspectives that varied in their attention to Donaldson (1985), and Donaldson (1988) then ended the symposium by claiming a conclusive routing of the critics. This point was contested in Marsden's (1993) follow-up to the 1988 symposium; Marsden (1993) used realism as a weapon to bash Donaldson and rehabilitate Foucault for organizational analysis.

In the early nineties, the series of intellectual eruptions continued. Jackson and Carter (1991), writing from a subjectivist perspective with sympathies for the radical humanist paradigm, mounted a strong defense of the Burrell and Morgan (1979) paradigm incommensurability thesis. In a lengthy response, Willmott (1993) challenged Burrell and Morgan's (1979) incommensurability thesis and Jackson and Carter's (1991) defense of it. Willmott (1993) illustrated the value of bridging the objective/subjective divide by offering an extended discussion of Burawoy's (1979) reconceptualization of labor process theory.

At about the same time, Astley and Zammuto (1992), also taking a subjectivist viewpoint, cited Wittgenstein (1953) to characterize organization science and management practice as separate language games. Astley and Zammuto (1992) argued that in the language game they play, organization scientists impose meaning on the phenomena they study, and therefore the corpus of administrative science is best described as a body of theoretical language rather than a representation of an external truth (Astley, 1985). Astley and Zammuto (1992) also noted that the organization science language game can contribute to the managerial practice language game by providing it useful terminology. Donaldson (1992) replied to Astley and Zammuto (1992) by arguing

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that there is little evidence that organization science constructs influence the conceptualizations of practicing managers. Beyer (1992) also expressed concern that the “language games” metaphor might be misleading, and she was particularly averse to the negative connotations that might be attached to the word “games”.

Compared to what came next, the debates summarized above were minor rumblings. In 1993, Pfeffer (1993) drew on the paradigm development literature (e.g., Lodahl & Gordon, 1972, 1973; Pfeffer, Leong, & Strehl, 1976, 1977) to depict organization science as a field with low paradigm development. By “paradigm development”, Pfeffer (1993) meant the degree of technical certainty and consensus in the knowledge production process, with low-paradigm disciplines exhibiting uncertainty and dissonance about appropriate research questions and methods. Pfeffer (1993) expressed concern that if problems of low paradigm development in organization theory were not addressed, the field would be ripe for a takeover by a rival discipline, for example economics.

Pfeffer’s (1993) paper unleashed a volcanic explosion of opposition that overflowed into the pages of the most prestigious journals in the field. First Perrow (1994) and Cannella and Paetzold (1994) took Pfeffer (1993) to task for insufficient acknowledgement of context and a stultifying desire for consensus. Then Van Maanen (1995a) launched a stream of invective at Pfeffer (1993), following that with a disquisition on the growing role of rhetoric and discourse in organization theory. Van Maanen (1995a) offered Karl Weick’s work as an example of how to write theory in organization science. Pfeffer (1995) responded to Van Maanen (1995a) by reiterating his (1993) position that consensus gives academic disciplines advantages in the competition for resources. Van Maanen (1995b) then unleashed more flows of invective at Pfeffer (1995), defending Weick’s influence on organization theory against Pfeffer’s (1995) supposed denial of that influence. The Pfeffer vs. Cannella/Paetzold/Perrow/Van Maanen debate had other twists and turns, but it was noteworthy for the degree to which Pfeffer’s critics talked past Pfeffer’s points (and he sometimes past theirs). The participants tended to espouse their favored positions rather than respond to one another. In the words of the primary metaphor adopted in this paper, this was a “low-heed” debate.

Other debates followed the Pfeffer vs. Cannella/Paetzold/Perrow/Van Maanen debate, but by this time many organization theorists seemed to be seeking a way to transcend the rancorous paradigm wars (Nord & Connell, 1993). For example, in a 1999 special issue of *Academy of Management Review* devoted to theory development, this quest for transcendence was a palpable undercurrent. In a postscript to the special issue, Weick (1999) betrayed an acute awareness of the paradigm wars, and an apparent desire to move beyond them. He deployed the metaphor of “conversation”, and concluded that the special issue papers contained resources for conversations across ontological and epistemological boundaries. In his work on sensemaking (Weick, 1995; Weick, Sutcliffe, & Obstfeld, 2005), Weick has continued to develop a theoretical framework that supports the transcendence of the objective/subjective divide. Weick (1995; Weick et al., 2005) has argued that individuals in organizational settings make sense of events in the flow of experience by categorizing them, objectifying the categories, and then responding to the objectifications as external realities. In this way, individuals continually enact the conditions that constrain future enactments (Weick, 1979), and create an apparently stable world from perpetual flux.

As noted, additional debates have emerged as aftershocks of the eruptions documented above; examples include a debate on organization theory's neglect of mandates handed down from the sociology of organizations (Hinings & Greenwood, 2002; Bartunek, 2002; Clegg, 2002) and a debate on the difficulty of making a life in organization science (Glick et al., 2007; Pfeffer, 2007; Sitkin, 2007; Rousseau, 2007; Hollenbeck & Mannor, 2007). It is also worth noting a series of debates on ontology, epistemology, methodology, and other theoretical issues in organization studies in a book edited by Westwood & Clegg (2003b). This series of debates was constructed by the volume editors in a point/counterpoint format that was designed to highlight the many fault lines remaining in the field of organization studies (Westwood & Clegg, 2003a). However, none of these later debates generated quite the attention and heat of the eruption by Pfeffer et al.

Our reason for dwelling in some detail on the debates summarized above is to contextualize the discussion to follow, and to emphasize the differences between the wars and our own work. Specifically, our work differs from the paradigm wars literature because it seeks to illuminate the intellectual practice of organization theory by applying the metaphor of "heed" to it, rather than concentrating on more abstract questions of ontology or epistemology. To that end, we now turn to a brief justification for transplanting the metaphor of heed from aircraft carriers (Weick & Roberts, 1993) to organization theory.

FROM AIRCRAFT CARRIERS TO ORGANIZATION THEORY

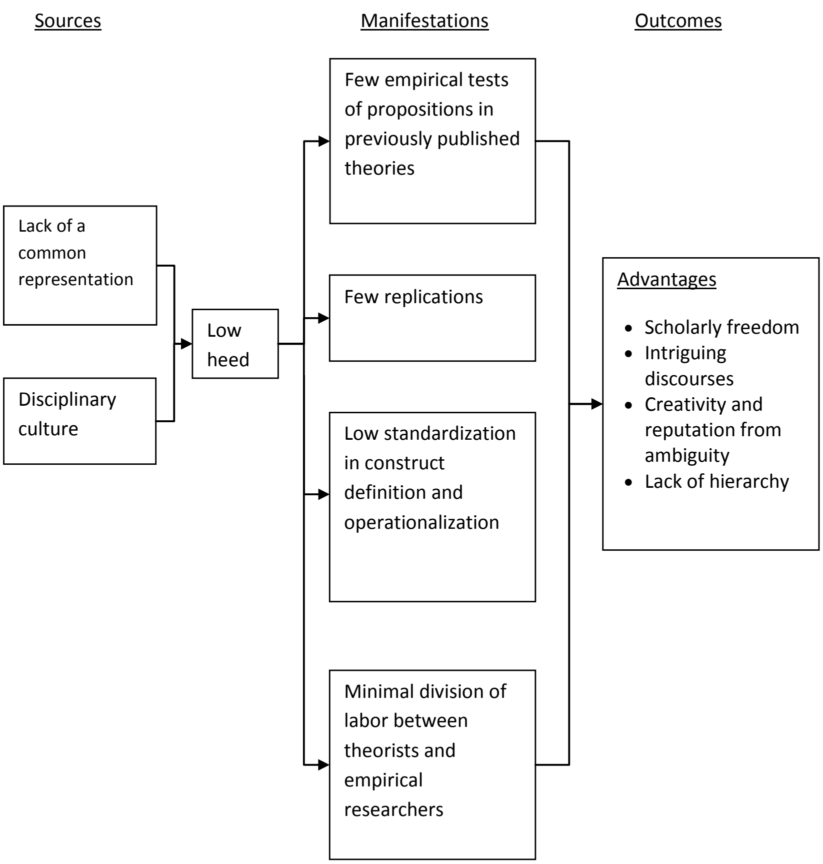
Weick and Roberts (1993: 361) defined "heed" by drawing on ideas from Ryle: "People act heedfully when they act more or less carefully, critically, consistently, purposefully, attentively, studiously, vigilantly, conscientiously, pertinaciously" (Ryle, 1949: 151). While all these adverbs are important to Weick and Roberts' (1993) concept of heed, their use of the concept and our introductory discussion of heedful interrelating on aircraft carrier flight decks suggest that attentiveness and vigilance are among the most important attributes of heed. Based on this sense of the word "heed", we argue that it makes sense to transfer the metaphor of heed from the target domain in which Weick and Roberts (1993) used it to the scholarly discipline of organization theory. While academic disciplines are not aircraft carriers, the literature on metaphor (e.g., Cornelissen, 2005; Cornelissen, Oswick, Christensen, & Phillips, 2008; Grant & Oswick, 1996; Morgan, 1980; Tsoukas, 1991) does not suggest that an exact correspondence between domains is necessary to make the transfer of a metaphor viable. Indeed, Cornelissen (2005) suggested that the value of metaphor is in its generative force: metaphors reveal something about a target domain that was not evident before the metaphor was applied to it. To the extent that organization theory can be considered a language game or a conversation (Astley & Zammuto, 1992; Huff, 1999; Mauws & Phillips, 1995; Nord & Connell, 1993; Weick, 1999), the metaphor of heed fits, drawing attention to the attentiveness and vigilance with which the language game or conversation of organization theory is conducted. We argue that in a number of important respects, that attentiveness or vigilance is relatively low in organization theory. If one were to imagine a continuum of heedfulness or heedful interrelating on which scholarly disciplines could be ranked, organization theory could be argued to sit near the low end. This has both advantages and disadvantages, but in this paper, in contrast to previous work (e.g., Pfeffer, 1993), we emphasize the advantages.

Of course, the field of organization theory is diverse and it could be objected that some perspectives (e.g., population ecology) have developed more heedfully than others. But we feel that one must make a distinction between individual schools of thought in organization theory (McKinley, Mone, & Moon, 1999) and the field as a whole. On the level of analysis of the field, relatively little heed is paid by members of one school to the work of scholars in other schools, because each school is concerned with different representations of the organization in its environment, and each school seeks to attract disciples by emphasizing its uniqueness relative to other perspectives (McKinley & Mone, 2003; Mone & McKinley, 1993). Furthermore, most of the work conducted in organization theory does not fit within the boundaries of any recognized school of thought (Walsh et al., 2006), and therefore does not benefit from whatever theoretical integration may exist within individual schools. In this essay we focus on the entire field of organization theory rather than any individual school of thought, and we therefore highlight the low-heed state of the discipline as a whole.

MANIFESTATIONS OF LOW HEED IN ORGANIZATION THEORY

We suggest that there are several manifestations of low heed in organization theory, and these are depicted schematically in the middle column of **Figure 1**.

Figure 1: Sources, Manifestations, and Outcomes of Low Heed in Organization Theory



First, low heed manifests itself in organization theory through the paucity of empirical tests of the propositions of previously published theories. In organization theory, a significant percentage of current work is published in the form of articles presenting new theories, particularly in the pages of the *Academy of Management Review*. It is rare for the propositions in this work to be empirically tested (Hambrick, 2007; McKinley, 2010), despite the fact that the articles often discuss methods for operationalizing their constructs and conducting empirical tests of their propositions. Organization theorists do not seem to feel much need to take heed of previously published theoretical work by empirically testing it. This leads to a disconnect between theory and empirical research, and it limits interaction between theorists and empirical researchers in the discipline.

This argument about low empirical heed is not necessarily refuted by the high citation rate enjoyed by *AMR* articles, as evidenced by the journal's high "impact factor" (ISI Web of Knowledge, 2009). Citations occur for many reasons, including ritual acknowledgement of previous work on a topic and establishment of the "intertextual coherence" (Locke & Golden-Biddle, 1997) that frames an author's argument. Thus, a high rate of citation of theoretical articles does not necessarily indicate dense empirical testing of their propositions.
To avoid any misunderstanding, we want to be clear that we do not intend this argument as a criticism of *AMR*. Since its founding in 1976, *AMR* has been an important source of theoretical innovation in the discipline of organization theory and in management scholarship more generally. The high citation rates that the journal enjoys are a sign of the scholarly esteem in which the journal is held. Thus, our goal is not to criticize *AMR*, but simply to note that relatively little empirical heed has been taken of propositions in the theories published there. We also acknowledge the youth of organization theory and the difficulty of testing theoretical representations that are sometimes incomplete depictions of novel, rapidly changing organizational phenomena. However, on the latter point, we note that other disciplines (e.g., high-energy physics) deal with rapidly changing phenomena, and yet empirical researchers in those disciplines arguably take more empirical heed of the propositions put forward by theorists (see Knorr Cetina, 1999 for an extensive discussion of high-energy physics).

A second manifestation of low heed in contemporary organization theory (see **Figure 1**) is the low incidence of replication of published empirical research in the discipline. As Hubbard et al. (1998), Rosenthal (1991), Tsang and Kwan (1999), and others have emphasized, replication is a basic norm of scholarly practice in many sciences. Viewed in terms of Weick and Roberts's (1993) framework, it is an important method of heedful interrelating in scholarly work. This is true even though replications in natural science are often done to validate methods, and replication is not always high-status work. In conducting replications, scientists take heed of past empirical contributions and seek to validate those contributions and extend them into new contexts or populations. Replication subordinates the replicator's resources and energy to the past empirical contributions of others, so that those contributions can be solidified and externalized as an accepted representation of reality. The willingness to subordinate that is implicit in the practice of replication is consistent with the suggestion that replication is a form of heedful interrelating in science. The lack of interest in replication in organization theory and in some other social sciences (Hubbard et al., 1998; Neuliep & Crandall, 1991; Sitkin, 2007) is a reflection of the low heed that seems to characterize those disciplines.

A third manifestation of low heed in organization theory is the lack of standardization in the meaning and operationalization of the discipline's constructs. Organization theorists apparently feel little need to create and then heed standard construct definitions, which would lead to convergence of the meanings that a given construct takes on in different studies. The case of operationalization is similar: a glance at lists of measures that have been used to operationalize constructs such as "corporate social performance" (Margolis & Walsh, 2003), "organizational effectiveness" (Hirsch & Levin, 1999), and "asset specificity" (David & Han, 2004), as well as the diverse operationalizations of many other constructs, suggests that organization theorists take little heed of past operationalizations in deciding how to measure a given construct in their own empirical work. Rather than converging around a standard definition or operationalization for a particular construct, organization theorists appear to behave more opportunistically, stretching (Osigweh, 1989) construct boundaries to accommodate the empirical data they have available, thus making those data a plausible operationalization of the construct (Astley & Zammuto, 1992). While this stretching may be attributable, at least to some degree, to the rapid change that occurs in organizational phenomena, the fact remains that inattention to past construct definitions and operationalizations in organization theory is a manifestation of low heed in the discipline.

A fourth manifestation of low heed in contemporary organization theory (**Figure 1**) is the absence of a well-established division of labor between theorists and empirical researchers. The division of labor between theorists and empirical researchers in such fields as high-energy physics (Knorr Cetina, 1999), and the heedful interrelating that this division of labor reflects and fosters, seem to be largely absent in organization theory. The normal research pattern for empirical articles in organization theory is a self-contained project in which one empirical researcher or a team of empirical researchers articulates a theory and empirically tests it. The theory is typically novel, or at least portrayed as such in order to satisfy contemporary organization studies journal norms (e.g., *Academy of Management Journal*, 2009; *Administrative Science Quarterly*, 2009). The theory and the test are both reported in a single journal article. As suggested earlier, it is relatively rare to see empirical researchers who do empirical research alone, testing pure theoretical contributions that have been previously published by other scholars. In stating that every piece of published empirical research must also make a novel theoretical contribution, the editorial policies of leading journals (*Academy of Management Journal*, 2009; *Administrative Science Quarterly*, 2009) do not encourage a division of labor between theorists and empirical researchers, nor do they foster heedful interrelating between those groups. Empirical researchers acting as co-authors of a paper in organization theory must of course take heed of each other, but they do not have to be as directly heedful of previously published theory as they would if they were performing empirical tests of that theory (Glick et al., 2007).

SOURCES OF LOW HEED IN ORGANIZATION THEORY

As indicated in **Figure 1**, the most important cause of low heed in organization theory is the lack of a commonly accepted representation of the phenomenon being studied. By this we mean more than the technical uncertainty and lack of consensus identified by Pfeffer (1993) as attributes of low paradigm development. We mean the lack of a commonly shared schema depicting the organization in its environmental context. For example, resource dependence theorists use a schema that depicts the organization as an entity engaged in exchanges of resources with a network of other organizations (Pfeffer & Salancik, 1978). Population ecologists use a very different schema, depicting the object of investigation as populations of organizations in niches defined by particular combinations of resources (Hannan & Freeman, 1977, 1984; Hannan & Carroll, 1992). Neo-institutionalists draw on yet another schema, one that represents organizations as entities embedded in institutional fields (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). The many organization theorists who do research outside the boundaries of these and other established organization theory schools have yet other representations that guide their work.

This lack of a commonly shared representation of the phenomenon of interest may reflect the dynamic character of organizations and their environments, but it also remains true that without such a commonly shared representation, it is difficult to sustain the communal contribution-representation-subordination cycle that Weick and Roberts (1993) characterized as fundamental to heedful interrelating. When an academic discipline has no commonly shared representation of what it is studying, it is difficult for individual scholars to orient their contributions toward a common reference point. In addition, the process of subordination becomes problematical: why should scholars subordinate their work to the contributions of others if they do not believe that those contributions reflect the same understanding of reality that their own work does? Initiating the process of subordination could help enact a common representation (Weick & Roberts, 1993), but getting the process started is difficult when different groups of scholars see organizational reality from different perspectives and such divergent perceptions are actually encouraged (e.g., Astley & Van de Ven, 1983; Burrell & Morgan, 1979; Cannella & Paetzold, 1994). This situation -- no subordination without a common representation, no common representation without subordination -- may help explain the forecast of some scholars (e.g., Glick et al., 2007) that there is little chance of achieving higher levels of consensus in organization science. In any case, from the individual scholar's point of view, especially given pressures to produce novelty (Mone & McKinley, 1993), the insubordination may be perfectly sensible.

Thus, the lack of a commonly shared representation of the phenomenon and the research questions that it entails inhibits the development of heedful interrelating among scholars, and the lack of heedful interrelating feeds back to interfere with the development of a common representation. The effects of this situation on heedful interrelating are also compounded by the contemporary culture of organization theory (see **Figure 1**). In addition to the values of inclusiveness and diversity noted by Pfeffer (1993), Mone and McKinley (1993) argued that the field of organization studies is characterized by a “uniqueness value”. This value “prescribes that uniqueness is good and that organization scientists should attempt to make unique contributions to their discipline” (Mone & McKinley, 1993: 284). Mone and McKinley (1993) based their judgment about the uniqueness value on published comments from editors of major organization studies journals, on materials used in the manuscript review process in organization studies, and on articles that reflect the views of gatekeepers in the discipline. The strong value placed on uniqueness in organization theory contributes to the low heed that scholars often pay to one another’s work.

Of course, uniqueness is valued in all scientific disciplines, and novelty is an important criterion for the assessment of any piece of scientific research (Collins, 1998; Whitley, 2000). But Mone and McKinley’s (1993) analysis suggested that uniqueness has become an institutionalized prescription in the editorial policies of leading organization theory journals such as *ASQ*, *AMJ*, and *AMR* (for a more recent confirmation of this conclusion, see Corley and Gioia, 2011). If scholars feel pressure to make their contributions unique, there is an incentive to differentiate their work from that of their colleagues, not integrate it with that work as would be the case in a heedfully interrelating system. Thus, we argue that the incentives for differentiation, rather than integration, have resulted in a low-heed field. Weick and Roberts (1993) made it clear that unique contributions that are separated from those of other system members are not encouraged on carrier flight decks, because they interfere with heedful interrelating and the ability to recover aircraft reliably. The fact that unique contributions are explicitly encouraged in organization theory supports our contention that -- for better or worse -- the field is a low-heed system.

ADVANTAGES OF LOW HEED IN ORGANIZATION THEORY

As may be apparent from the preceding paragraphs, our attitude toward the low-heed state of contemporary organization theory is ambivalent. While there are significant disadvantages to low heed in the discipline, we have also come to recognize that there are important advantages. We concentrate on the advantages in this paper, because the disadvantages have been adequately covered in previous work (e.g., Donaldson, 1995; Glick et al., 2007; Pfeffer, 1993).

As **Figure 1** makes clear, one major advantage of doing scholarship in a low-heed discipline like organization theory is the freedom that a lack of constraint toward heedful interrelating provides. When institutionalized patterns of work and the behavioral norms in a discipline do not enforce the tripartite contribution-representation-subordination process that Weick and Roberts (1993) associated with heedful interrelating, scholars have freedom to delve into a wide array of topics. Scholarly production is not limited by prior empirical work or a commonly acknowledged theoretical representation in the same way it would be in a higher-heed discipline. Under such conditions, innovation is likely to flourish (Mone & McKinley, 1993), and scholars may explore phenomena that would be foreclosed to them if they had to subordinate their contributions to a common representation that prioritized certain features of the empirical domain for inquiry. In organization theory, this freedom supports the creation of multiple perspectives, legitimizing a multi-schooled structure for the discipline (see Astley, 1985; Astley & Van de Ven, 1983; Burrell & Morgan, 1979; McKinley et al., 1999; Koontz, 1980).

The low-heed state of organization theory opens up space for imaginative work, and such work can add a sense of creativity to the discipline. Examples of such work are the articles presented in the *AMR* (1992) Theory Development Forum on New Intellectual Currents in Organization and Management Theory. Those articles dealt with such subjects as radical humanism (Aktouf, 1992), emancipation in management and organization studies (Alvesson & Willmott, 1992), bounded emotionality (Mumby & Putnam, 1992), and a psychoanalytic reading of hostile takeover events (Schneider & Dunbar, 1992). Such work, produced in the context of a low-heed discipline, adds spark and interest (Davis, 1971) to organization theory. Judged as a discourse, the discipline is often intriguing, and it is difficult to deny that there is something for everybody in the kaleidoscope of topics in contemporary organization theory.

An additional benefit of low heed in organization theory (**Figure 1**) stems from the lack of standardization in construct definition and operationalization that was mentioned above. The fact that organization theorists generally take minimal heed of previous definitions and operationalizations of a given construct means that constructs in the discipline often carry multiple meanings (Astley & Zammuto, 1992; McKinley, 2003). This ambiguity can be a source of difficulty, but it is also a stimulus for intellectual creativity. The ambiguity of organization theory constructs generates puzzles about the exact empirical territory covered by a given construct, and those puzzles often lead to debate, empirical investigation, and new insight. As an example, the reader is referred to the debate about the meaning of the construct "organizational technology". As this construct was used repeatedly in various empirical studies in organization theory, each of which employed a somewhat different operationalization from the preceding studies, a robust secondary literature (e.g., Fry, 1982; Gerwin, 1981; Gillespie & Mileti, 1977; Jelinek, 1977; Rousseau, 1979; Stanfield, 1976) arose that was devoted to the interpretation of the meaning of "technology". This literature provided new insights about the operation of input-output conversion processes in organizations, adding to the creative discourse that has come to be a significant feature of organization theory scholarship. A more contemporary example of the creative discourse generated by construct ambiguity would be the current discussion of the meaning of the construct "institution" (e.g., Scott, 1995; Greenwood, Oliver, Sahlin, & Suddaby, 2008).

Indeed, the ambiguous constructs of organization theory reproduce, at least to some degree, the revelatory power of a new scientific instrument. By interpreting an empirical object as an instance of a more broadly constructed organizational phenomenon, the object is transformed, and aspects of it that were not evident before become highlighted. For example, characterizing an organization's information processing routines as a "resource", as one might do in deploying the resource-based view of the firm (Barney, 1991; Barney & Hesterly, 2006), imparts new meaning to those routines, revealing a new aspect of them. While this is a hypothetical example, the point is that ambiguous constructs help researchers "see" new dimensions of organizational entities and thus understand those entities from a different vantage point.

In addition, the ambiguous constructs that are bred by lack of heed to standard construct definitions or operationalizations furnish spaces in which empirical researchers can build reputations. By linking their data sets to broadly defined constructs that are in vogue in the literature, empirical researchers can "sell" their data into that literature, building visibility and renown for their work. While one might view this process cynically, it can also be interpreted as an essential element of the social construction of organization studies (Astley, 1985). If empirical researchers were not motivated by the reputational advantages obtainable from affiliating their work with broadly articulated constructs, their level of activity might decline, and their willingness to participate in the "reputational work organization" (Whitley, 2000) of organization theory might diminish.

A final advantage of low heed in organization theory (**Figure 1**) is that it interferes with the formation of hierarchies that would distribute authority unequally among the members of the discipline. As Weick and Roberts's (1993) description of carrier flight decks suggests, heedful interrelating reinforces hierarchical authority, because members of the system are required to subordinate their contributions to a representation that is at least partially determined by higher levels of authority in the system. While each pilot and deckhand represents the system through his or her own cognitions, those cognitions are molded through socialization and the repetition of routines that are accepted as common practice by all concerned and that are influenced by higher-ranking officers (Weick & Roberts, 1993). This is not a system in which equality between all members is either possible or encouraged. On the other hand, in a low-heed academic discipline like organization theory, authority and power are distributed more equally among the individuals making up the system (Glick et al., 2007; Pfeffer, 1993). No single group of scholars controls enough critical resources to enforce its vision of what organization theory should be or which paradigmatic representation should dominate the field. This diffused power structure is reinforced by a wide dispersion of talent, productivity, and rewards throughout the discipline – as Glick et al. (2007) reported, no single academic institution has more than a few of the most productive scholars and no institution can claim more than a small percentage of the total pages published in organization theory journals. For those receptive to lack of hierarchy and suspicious of status gradations, organization theory is a nearly ideal scholarly environment.

LOW HEED AND THE NEWCOMER

Weick and Roberts (1993) argued that the socialization of newcomers into carrier flight operations is a key aspect of fostering heedful interrelating on the flight deck. Similarly, we consider the socialization process that is encountered by newcomers to the field of organization theory. Weick and Roberts (1993) argued that patterns of heedful interrelating are internalized by new crew members as they move into the tightly coupled system of aircraft carrier flight operations. Weick and Roberts (1993) asserted that if heedful interrelating is visible, rewarded, and modeled, there is a high probability that the newcomer will learn this style of response and incorporate it into his or her understanding of his or her role in the system. In other words, heedful interrelating is driven by the ways in which experienced insiders interact with newcomers. If insiders are preoccupied, indifferent, or simply not available, newcomers are likely to learn little about heedful interrelating and act without heed (Weick & Roberts, 1993).

Building on this point, organization theory does not seem to contain, on the level of the discipline, the physical and social infrastructure required to foster heedful interrelating between old-timers and newcomers. As Glick et al. (2007) have pointed out, the typical pattern of doctoral training in the organizational sciences is a loose apprenticeship characterized by minimal supervision and intermittent contact between the mentor and the advisee. This contrasts with the normal training regime in laboratory sciences, where doctoral students work under the close supervision of a professor in a laboratory (see Geison & Holmes, 1993). That professor is typically operating with a physical infrastructure established by funding through grants and a social structure for allocating the laboratory work. In that context, the student is educated by being exposed to progressively more difficult research problems, some of which involve replicating the work of the laboratory head or other contributors to the same research area (Kuhn, 1970). In this way, the student assimilates the representation governing research in the field, and the student learns to subordinate his or her contributions to that representation. The result is that the student makes contributions to knowledge, but those contributions are more integrated with previous representations of the phenomena of interest than are those of the typical organization theory newcomer.

Put another way, the low-heed structure of organization theory is reproduced in the relationships between mentors and newcomers. This encourages newcomers to make contributions that are less integrated and potentially more unique than the contributions of the typical newcomer to the laboratory sciences. This increases the innovativeness of newcomer work but reduces the newcomer's ability to add to a consensus-based aggregation of knowledge. For newcomers (as for old hands) in organization theory, research that seeks uniqueness (Mone & McKinley, 1993) or originality (Corley & Gioia, 2011) produces a heightened sensitivity to those aspects of organizations that are changing rapidly, and a lower sensitivity to the accumulation of knowledge about those aspects that are not.

In the process of putting the low-heed training they have received into action, newcomers to organization theory may inadvertently contribute, in a feedback effect, to the low-heed character of their discipline. Idiosyncratic, unique contributions are occasions for reviewer learning, but are nevertheless difficult for journal reviewers to evaluate (Astley, 1985). Therefore the submission of such contributions to journals by newcomers (and old-timers) increases the time and effort devoted to reviewing, thus enhancing reviewer overload. Such overload in turn increases the premium placed on novel, idiosyncratic work by reviewers (McKinley et al., 1999), because novelty instigates a sensemaking process (Weick, 1995) that marks out certain contributions for attention and temporarily relieves overload. In this way, the low-heed training that newcomers to organization theory experience (Glick et al., 2007) may have unanticipated consequences that feed back through idiosyncratic journal submissions to undercut the contribution-representation-subordination cycle that Weick and Roberts (1993) posited as central to heedful interrelating. In sum, the training of newcomers in organization theory may be part of a self-reinforcing loop that perpetuates the low heed with which it started.

DISCUSSION

In this paper we have adopted Weick and Roberts's (1993) concepts of heed and heedful interrelating, and used them as metaphorical lenses to view the current state of organization theory. We have argued that organization theory can be characterized as a low-heed discipline, and we have posited that this low heed is manifested in a lack of attention

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to the empirical testing of propositions in previously published theories, a lack of emphasis on replication, a lack of standardization in construct definition and operationalization, and a minimally developed division of labor between theorists and empirical researchers. We have asserted that the basic cause of this lack of heed is the absence of a commonly shared representation of the phenomenon – the organization in its environment – that is the subject of investigation for organization theorists. This lack of a common representation of the subject of study, in combination with the disciplinary culture of organization theory, inhibits the communal contribution-representation-subordination process that is the essence of heedful interrelating in any social system.

We have indicated that low heed within organization theory has both advantages and disadvantages, but to distinguish our work from past critiques of the field, we have emphasized the advantages. The consideration of those advantages suggests that organization theory is often an intriguing and imaginative discourse (Westwood & Clegg, 2003a). It also has the capacity to illuminate rapidly changing organizational phenomena through the application of flexible constructs. Should we therefore wring our hands because organization theory does not exhibit more heedful interrelating, or should we rejoice in the progress that has been made thus far, even if that progress is not as imbued with heedfulness as some organization science commentators might wish? Though we began work on this essay with a critical attitude toward our discipline for its apparent neglect of heedful interrelating, we now see more clearly the tradeoffs involved in such interrelating, and we believe some optimism is warranted about the future of organization theory as a discipline. To have attained the capacity to produce work that is sometimes interesting (Davis, 1971), even if it is often not intersubjectively validated through heedful knowledge aggregation, is not an insignificant achievement. Besides, we believe there are ways to inject a bit more heedfulness into organization theory without interfering with the freedom and the equality that are the valued hallmarks of the discipline. We turn to those suggestions now and then conclude this essay with some implications of our argument for the practice of management.

Injecting More Heed Into Organization Theory

One possibility for injecting a little more heed into organization theory would be to establish dedicated journals or sections of journals that would publish first empirical tests of the propositions in previously published but untested theory (Hambrick, 2007). Currently, no dedicated forums exist for this kind of work, whereas, strikingly, a dedicated forum (*AMR*) does exist for publishing pure theory articles. Reserving journal space for publishing first empirical tests of the propositions in previously published theories would encourage authors to take more empirical heed of the theoretical contributions of others as they plan their own research agendas. In other words, such forums would provide an incentive for heedful empirical interrelating and a place where its products could be disseminated to scholarly audiences. The result might be a more robust scientific evaluation process (Donaldson, 2009), and more reliable advancement of consensus-based knowledge.

A second suggestion would be for journal editors and reviewers to encourage the use of standard construct definitions and operationalizations by authors submitting work for review. Although this might bound the individual insight achievable by idiosyncratic construct use, it would help aspiring authors bring their contributions into line with those of their colleagues and increase the aggregation potential in the evolving knowledge base. If past operationalizations of a core construct were inconsistent, as is often the case, effort could be devoted to the cooperative production of a standard definition and operationalization to which specialists in a research area could commit. This could be accomplished through the development of mini-construct dictionaries (McKinley & Mone, 1998) or standard measuring instruments (McKinley, 2007). This recommendation for consistency in construct definition and measurement has also been voiced recently by leading contributors to organization theory, for example Greenwood et al. (2008). The constraint toward standardization that the suggested policies would create would arguably benefit the discipline, even though it might reduce secondary literatures of interpretation. Actually, a strong case can be made that if construct definitions and operationalizations were standardized, scholars could save time and effort that is currently devoted to the conceptualization and justification of new instrumentation, and this would leave more time for developing theories that are creative in uncovering novel causal relationships. This might actually produce a more dynamic and interesting body of theory, contrary to the critical idea (posited by Cannella & Paetzold, 1994) that standardization would stultify the discipline.

A third suggestion for injecting more heed into organization theory would be more standardization within and between doctoral programs. Doctoral programs could be redesigned to incorporate a greater emphasis on closely supervised apprenticeship and subordination to previous organization theory contributions. This is consistent with the recommendation of Glick et al. (2007) in favor of a more mechanistic structure in doctoral education. If journal outlets for first empirical tests of previously published theory were created, as recommended above, these outlets could provide an incentive for doctoral students to begin their training by empirically testing existing theories within the structure of a closely supervised doctoral program.

In addition to this, heedfulness could be increased through the use of more standardized learning materials, such as textbooks, in doctoral seminars, rather than the alternate model of exposing the students to an array of research articles that cover a spectrum of work in the discipline. While this textbook approach might at first appear to represent a “dumbing down” of doctoral education in organization theory, it might actually be an important means of promoting heedful interrelating in the field. Kuhn (1970) emphasized the importance of the textbook as a repository of paradigmatic knowledge, also noting that it is the source of exemplars that teach the practice of the paradigm. The use of textbooks in doctoral training might give the students the communal representation they need to begin a contribution-representation-subordination cycle that could enhance reliable knowledge production. It is doubtful that textbooks exist to teach newcomers safe and reliable aircraft recovery on carriers, because the place of such textbooks is taken by intensive socialization from old-timers (Weick & Roberts, 1993). However, in academic disciplines textbooks may help preserve the representations of a physically dispersed group of old-timers in printed form. These printed representations could be disseminated as a standard package that guides heedful interrelating in the field.

A final suggestion for incorporating more heed into organization theory is to organize specialized conferences that would promote the aggregation of knowledge and technique in the field. By this, we mean conferences focused on establishing standardized construct definitions (Greenwood et al., 2008), uniform measures, a better-developed division of labor between theorists and empirical researchers, and more use of meta-analysis techniques (Hunter & Schmidt, 1990). Such conferences would be a useful step in an incremental refocusing of the field. The conferences should be democratic, with procedural safeguards to guarantee input from any scholar who wished to give it. They could be held independently, or as sections of larger conferences like the annual meeting of the Academy of Management. The Professional Development Workshops currently being offered at the AOM meetings provide a possible forum for promulgating the knowledge aggregation techniques we are referring to here. The key goal would be to facilitate cumulative knowledge production by incorporating methods for heedful interrelating into organization theory scholarship.

We want to stress that we do not believe the incremental advances in heed we are recommending for organization theory would destroy the advantages enjoyed by the field: scholarly freedom, intriguing discourses, creativity and reputation from ambiguity, and lack of hierarchy. Since organizations and their environments are rapidly changing phenomena, there will always be some evolution away from standard construct definitions, and scholars will always attempt to capture the new organizational forms that are constantly emerging. Thus, some ambiguity will always be available as a platform for scholarly discussion and the social construction of the discipline. Correspondingly, it seems doubtful that organization theory will ever be captured by a rigid paradigm, because the nature of the entities studied militates against it, and therefore scholarly freedom will not be banished. And organization theory is likely to remain non-hierarchical because even with the more standardized instrumentation we advocate, there is unlikely to be restricted access to such instrumentation, as is typical in such natural sciences as astronomy, high-energy physics, and other “big sciences” (Price, 1963). In summary, we believe that a more heedful organization theory can preserve freedom, intellectual excitement, novelty, and a decentralized structure, all attractive features of the field as it exists today.

Implications for the Practice of Management

Given the continuing concern among organizational scholars about their work's lack of relevance to management practice (e.g., Beyer & Trice, 1982; Cheng & McKinley, 1983; Corwin & Louis, 1982; Hambrick, 1994; Rynes, Giluk, & Brown, 2007; Thomas & Tymon, 1982; Tranfield & Starkey, 1998), we would like to conclude this essay with some implications of our arguments for the practice of management. Many organizational scholars clearly want their work to matter in the real world of management practice. However, organization theory arguably matters less than it should (Hambrick, 1994). Viewed in the context of this essay, part of the problem may be the mismatch between the low levels of heedful interrelating within the field and the high levels of heed in the organizations that management scholars often seek to benefit -- organizations like manufacturing firms, hospitals, airlines, and even aircraft carriers. Incremental advances in heed such as those suggested above may remedy this mismatch, at least in part. The goal would be to move toward a future in which greater heedful interrelating in organization theory could provide validated tools for managers that they could use to improve their practice, while simultaneously offering them some flexibility in construct meaning. Astley and Zammuto (1992) pointed out that this flexibility has valuable political uses for managers who adopt the language of organization theory, but those authors despaired of the possibility of deriving concrete management tools from the discourse of the field. Our vision for the field is one in which both the instrumental and conceptual/symbolic functions that Astley and Zammuto (1992; see also Pelz, 1978) discussed are fulfilled by organization theory exports into management practice. Such a dual role (technical utility and conceptual/symbolic utility) is attainable for the intellectual products of organization theory, we think, and the achievement of this duality would have the potential for enhancing management practice.

In conclusion, we hope that our appropriation of Weick and Roberts's (1993) constructs of heed and heedful interrelating have illuminated some of the critical attributes of current scholarly practice in organization theory, as well as highlighting the social structures and behaviors that underpin that practice. Only by better understanding how we "do business" can we enhance the fidelity of our knowledge production while guarding the innovativeness and the adaptability of our intellectual products. If we truly wish to become the kind of real-world force to be reckoned with that Hambrick (1994) envisioned, introspection about our methods and our level of social integration is in order. This paper is intended to advance that agenda.

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