The Past Twenty Years: Teams Research Is Alive and Well at the *Journal of Management*

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Two decades ago, Levine and Moreland (1990) concluded their *Annual Review of Psychology* article by observing that small-group research had moved from the field of social psychology to other disciplines such as organizational psychology and business. The *Journal of Management* (*JOM*) is definitely a place where research on groups and teams moved and continues to reside. For example, during the past 20 years, *JOM* has published three comprehensive and widely cited reviews of research related to teams in work organizations: those by Bettenhausen (1991), Cohen and Bailey (1997), and Mathieu, Maynard, Rapp, and Gilson (2008). A number of more specific reviews and primary studies have also been published. This review issue continues the tradition of team contributions with articles related to team mental models (Mohammed, Ferzandi, & Hamilton, 2010), team boundary spanning (Marrone, 2010), and team expertise-based intuition (Salas, Rosen, & DiazGranados, 2010). Reading and thinking about this new set of reviews led me to reflect on how team research has progressed—and in some cases not progressed—in the past 20 years.

It is clear to me that progress has been more rapid in some areas than in others. In the sections below, I discuss a few examples of progress. I first discuss the review by Mohammed and colleagues (2010) as focusing on an area of research where I think definite progress has been made during the past two decades. I then explore team diversity as a topic that I think has been extensively researched with perhaps less progress. I next look at team context as an example of an area that has progressed little but seems poised to rapidly advance in the
near future. The reviews by Salas and colleagues (2010) and Marrone (2010) provide critical direction in this area. This leads me to muse about temporal aspects of teams as an illustration of an area of research that is sorely needed but difficult to advance. After exploring how research has—and has not—advanced in these areas, I identify keys that I hope will guide researchers in their efforts to advance further our understanding of groups and teams. I should also note that, even though it is clear that contributions have been provided in numerous journals, my focus in this editorial is specifically on a few key articles published in *JOM*.

**An Active Area of Research With Progress**

Near the conclusion of his review, Bettenhausen (1991) identified a need to gain a better understanding of how teams gain a shared understanding of appropriate actions. Klimoski and Mohammed (1994) answered this call with a comprehensive analysis of mental models as representations of group cognition. Work such as this led Cohen and Bailey (1997) to add a category of group psychosocial traits to the commonly accepted input-process-output model of groups. Such constructs that come about through group member interaction have evolved into what is now commonly referred to as emergent states of teams. Mathieu et al. (2008) point out that the emergent property of the team mental model has been among the most frequently studied characteristics of teams. Twenty years of research has thus taken us from a point where little was known about a construct to the current state where Mohammed and colleagues (2010) not only can provide conceptual clarity about the construct but also can identify outcomes and predictors. Our understanding of team mental models has thus progressed from the point of questioning whether the construct even existed to current efforts to refine measurement.

**An Active Area of Research With Little Progress**

Similar to team mental models, researchers have focused a great deal of attention on team diversity. However, progress has been less clear when it comes to diversity. Bettenhausen (1991) identified cultural differences as a critical area of concern for teams. Yet, three meta-analyses (Horwitz & Horwitz, 2007; Stewart, 2006; Webber & Donahue, 2001) have found relatively weak relationships between diversity and team performance. Reasons for weak relationships, as well as opportunities for refining diversity research, were advanced by Jackson, Joshi, and Erhardt (2003), who point out the need to examine less obvious but perhaps more critical types of diversity, to pay more attention to team settings and contexts, and to use more sophisticated multilevel methods of analysis. The first idea has resulted in some success, as Horwitz and Horwitz (2007) found task-related diversity to have stronger relationships with performance than demographic diversity does. The magnitude of the relationships was, however, rather modest (ρ = .13 for quality of performance, .07 for quantity of performance). So far, extensive efforts to link diversity with team performance have thus been relatively futile, even when the type of diversity has been more carefully scrutinized. Future progress related to diversity may thus rely on other opportunities identified by Jackson and colleagues (2003) such as paying more attention to context and using multilevel methods.
An Area of Research Poised to Advance

Mathieu et al. (2008) point out context as an aspect in need of additional research in studies of teams. Individuals are embedded in teams, which are normally embedded in organizations. Yet, few studies have explored how differences in organizational context influence teams. One reason is the difficulty of obtaining samples of teams from multiple organizations. However, in comparison with identifying single organizations with sufficient numbers of teams, it may in many instances be easier to obtain smaller samples from multiple organizations. Increased familiarity with and use of random coefficient modeling also provides an appropriate methodological technique for studies. The review of expertise-based intuition by Salas and colleagues (2010) provides an example of a specific concept that can be tested with multilevel models. External leadership and organizational culture are organization-level factors that are likely to influence team-based expertise. Exploring relationships between these contextual factors and team-based intuition and performance seems not only possible but also highly relevant. The most difficult aspect is likely identifying and obtaining data from multiple firms that differ across the organization-level factors in a meaningful way. Yet, in practice this may not be any more difficult than identifying an organization with a sufficient number of teams to serve as single research site.

Marrone’s (2010) review of boundary spanning highlights another avenue by which research can advance our understanding of team contexts. Although relationships between teams and their contexts seem like an obvious area of inquiry, only limited work has been done. Marrone’s five research directions provide good guidance for future efforts. Her multilevel model also clearly illustrates how individual, team, and higher order levels of analysis can be interconnected. Relationships between network boundary spanning and antecedents such as alliance goals are clear avenues for linking teams with their broader contexts. Multilevel modeling techniques also provide superior methodologies for linking individual boundary spanning to teams. Research on boundary spanning seems overdue and will hopefully advance at a more rapid pace in the future than it has in the past 20 years.

An Important but Difficult Area of Research

Mohammed and colleagues (2010) end their review with a call for increased research related to temporal aspects of teams. Marrone (2010) captures this need in her second research direction that focuses on boundary spanning across a team’s life span. Such calls are not new. Cohen and Bailey (1997) identified exploring time as a key area in need of additional research, and Mathieu et al. (2008) concluded their review with a challenge for researchers to embrace complexity and incorporate true longitudinal research designs. It seems clear that most researchers agree that this is a critical aspect of teams that has not been adequately studied. Obtaining data at multiple points in time has been the primary obstacle for this type of research in the past. Unfortunately, this is not something that will seemingly become easier in the future. As a field of inquiry, we should place a premium on longitudinal efforts. An example of such research is a study by van der Vegt, Bunderson, and Kuipers (in press), which will appear in the September 2010 issue of JOM. They collected data at two points in...
time and found team turnover to have a negative relationship with team effectiveness over a 12-month period. Hopefully, researchers will conduct more studies like this in the next decade.

**Keys for Advancing Research**

Although far from exhaustive, the above examples illustrate some ways that research has, and has not, advanced over the past 20 years. Looking at these examples, it seems possible to identify at least three keys that we should keep in mind as we seek further to advance our understanding of teams in work organizations.

The first key for researchers is to address a problem of critical importance. Mohammed and colleagues (2010) suggest that much of the advancement related to team mental models has come about because of the strong link between this emergent state and team performance. Focusing on areas that have a clear impact on team outcomes thus seems like a first step toward making sure that research is advancing.

The second key is to continue efforts to create and refine methodological advancements. The spread of random coefficient modeling provides an avenue for exploring critical issues such as expertise-based intuition, boundary spanning, and diversity. These areas of inquiry have not advanced a great deal over the past two decades, but progressive methodologies have advanced and are now understood and adopted by enough researchers that we should see substantial progress in these areas over the next few years.

The third key is to build relationships with organizations that can serve as research sites. Temporal issues should be just as important to organizations as they are to researchers, suggesting that organizations should cooperate if we as researchers work with them to illustrate the benefits of longitudinal research. Over the past few years a number of research groups have worked closely with government agencies to fund laboratory research related to teams. These researchers expend a great deal of time and energy interacting with and satisfying the needs of the funding agencies. Perhaps we as a field can learn from this example and expend more time and energy building relationships with organizations so that we can work together to conduct longitudinal studies. We might also benefit from thinking creatively about archival sources of data.

Looking back over the past 20 years, I thus see substantial progress toward better understanding teams in work organizations. Team research has emerged as a dominant area of inquiry within the field of management. Fortunately, there are still many questions to be answered, along with improving methodologies to answer them. The future of team research thus looks bright for the next 20 years.

**References**

Bettenhausen, K. L. 1991. Five years of groups research: What we have learned and what needs to be addressed. *Journal of Management*, 17: 345-381.


