Group Diversity’s Effects on Sport Teams and Organizations: A Meta-Analysis

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Introduction

Thanks to the various factors, including changing demographics, equal employment laws, transformations in organizational structures, and social pressures for inclusive workplaces, sport organizations have become more diverse over the past two decades (Cunningham & Fink, 2006). As a result, a number of scholars have endeavored to understand the influence of diversity on organizational processes and outcomes. However, the impact of group diversity on the subsequent outcomes and moderating variables potentially affecting this relationship are still not fully answered with mixed findings in the literature. One way to reconcile these seemingly contradictory results is through meta-analysis. A meta-analysis uses statistical methods to combine results of different studies to provide a common metric and overall effect (Hunter & Schmidt, 2004). This can help researchers find relationships across studies that are obscured in other approaches (Hunter & Schmidt, 2004). Therefore, a meta-analysis can be an appropriate technique to resolve apparent contradictions in findings in this topic.

The primary construct in the current study is group diversity, and thus, we follow what Tsui and Gutek (1999) refer to as a compositional approach to the study of diversity (see also Klein & Harrison, 2007). Group diversity focuses on how differences among members of a group—whether a team, exercise group, or sport organization—are associated with subsequent outcomes for that social unit. Regarding the impact of group diversity, there are seemingly two theoretical schools of thought concerning how group differences are associated with subsequent outcomes. From one perspective, diversity is thought to result in poor group functioning and impede performance (e.g., the similarity-attraction paradigm and social categorization theory; Byrne, 1971; Tajfel & Turner, 1979). From a different perspective, other theoretical frameworks suggest that differences among group members should be a source of learning and enrichment, ultimately resulting in improved performance (e.g., categorization-elaboration model; the information-decision making model) (Ely & Thomas, 2001; Knippenberg et al., 2004). Thus, the theoretical models used to understand diversity’s effects on groups and organizations mirror the empirical research on the topic: some suggest negative effects, while others suggest positive ones.

Given (a) the need to reconcile the seemingly conflicting results and (b) the efficacy of meta-analysis in doing so, the purpose of this study was to meta-analytically examine the influence of team and group diversity on various outcomes. We identified a number of potential moderators: diversity type (surface-level and deep-level), sample type (administrators and players), setting type (college athletics, professional sports, and non-profit sports), outcome type (affective reactions, team performance, and organizational effectiveness), and publication type (published and non-published).

Methods

In this study, we implemented a meta-analytic technique to examine and integrate peer-reviewed articles focusing on group diversity and its relationship with subsequent outcomes. The first step in the data collection process was to collect all potential studies to include in the analysis, following the procedures outlined by meta-analysts (Cooper, 2009; Lipsey & Wilson, 2001). After collecting all potential articles, theses, and dissertations from 2004 to 2013, we used the following criteria when designating studies for inclusion. First, the studies have to quantify one or more associations between antecedents and outcomes in the research model. Second, as this was a sport-focused meta-analysis, only studies that are related to sport teams, physical activity groups, or sport organizations were included in the study. Third, we systematically screened for overt and covert duplicate studies to remove bias due to duplicate study effects (Wood, 2008). We included both published and unpublished studies (e.g., dissertation, theses, conference papers, and working papers) to diminish potential effects of publication bias (Rothstein et al., 2005). Finally, the meta-analysis included studies that contain sufficient statistical data, such as zero-order correlations (r),...
effect sizes statistics, means and standard deviations, F ratios, or t statistics, to calculate an estimate of effect size. In conducting the analysis, we corrected for sample size (Hedges & Olkin, 1985) and the reliability of the measures (Hunter & Schmitt, 2004), as doing so provides more precise estimates. We also calculated effect size, the 95% confidence interval around the corrected correlations, and z values for significance (Cooper, 2009; Wilson & Lipsey, 2001). The tests for moderators were performed following Hedges & Olkin’s approach (1985), such that the Q statistic was computed for each moderator.

Results
The literature search process resulted in the inclusion of 18 studies. From these studies, we analyzed 62 unique effects from 14,271 participants. After correcting for sample size outliers using Grubbs correction, the adjusted sample size is 7,995. In interpreting the size of the effects, we used Cohen’s (1988) guidelines: an association of .10 is small, .30 is moderate, and .50 is large. Results shows that overall group diversity has a positive main effect on group effectiveness (rc = .05; z value = 4.39, p < .001; 95% CI: .03, .07). While the effect was statistically significant, the practical effect was small (Cohen, 1988). Moreover, we observed significant effects for the following moderators: sample type (Qb = 6.89, df = 1, p < .01), setting (Qb = 9.69, df = 2, p = .008), and outcome type (Qb = 6.88, df = 2, p = .03).

Discussion
There are several key findings and implications from the work. First, we found group diversity has positive effects on group effectiveness, though the effects are small. These findings are nevertheless instructive because they provide an effect size estimated across a wide range of investigations and suggest that group diversity is positively associated with important group outcomes. We also observed moderating effects: diversity among coaches, but not players, was associated with improved performance; diversity in college athletics and non-profit sport was associated with performance gains, while the same was not observed in professional sport settings; and diversity was positively related to organizational effectiveness (e.g., ROI) and affective outcomes, but not team performance.

This study makes several important contributions. As previously noted, this is the first study identified to meta-analytically examine the influence of group diversity within the sport context. Given the growth of the field and the need for sport-specific investigations (Chalip, 2006), the uniqueness of the investigation presents a key contribution. On a related note, this study provides more generalized understanding of the relationship between group diversity and group effectiveness as the results of meta-analyses have greater generalizability than a single randomized study (Hunter & Schmidt, 1990). Lastly, since the effects of group diversity on subsequent outcomes have not been answered clearly, the results of this study may help resolve the controversies on the effectiveness of group diversity.