

# Beyond Status: Relating Status Inequality to Performance and Health in Teams

Amy M. Christie  
Wilfrid Laurier University

Julian Barling  
Queen's University

Status structures in organizations are ubiquitous yet largely ignored in organizational research. We offer a conceptualization of team status inequality, or the extent to which status positions on a team are dispersed. Status inequality is hypothesized to be negatively related to individual performance and physical health for low-status individuals when uncooperative behavior is high. Trajectories of the outcomes across time are also explored. Analyses using multilevel modeling largely support our hypotheses in a sample of National Basketball Association players across six time points from 2000 to 2005.

*Keywords:* status, inequality, teams

Team composition has increasingly become the object of organizational research. The main focus of this research has been on demographic composition factors, such as age, gender, ethnicity, functional background, and education (Jackson, Joshi, & Erhardt, 2003), and deep-level composition factors, such as personality, values, and abilities (e.g., Bell, 2007). Largely escaping this work has been an emphasis on the status composition of teams, despite a vast sociological literature demonstrating the inevitable emergence of status hierarchies in small groups (e.g., Berger, Ridgeway, Fisek, & Norman, 1998). These hierarchies can vary widely in form and become legitimized in the group through social interaction (Ridgeway & Walker, 1995). Given that the study of status hierarchies in small groups has an entrenched history in the sociological literature, its near omission from research on teams is intriguing (DiTomaso, Post, & Parks-Yancy, 2007), especially because organizations are thought to have a clear role in creating and maintaining status distinctions (Pfeffer, 1998).

Responding to recent calls (Pearce, 2001; Ravlin & Thomas, 2005), our purpose here is to examine how team status hierarchies influence individual outcomes. Evidence suggests that status hierarchies are related to basal properties of successful teamwork, such

as processes of social influence and interaction, and can become organizers of behavior within groups (Berger, Rosenholtz, & Zelditch, 1980; Ridgeway & Correll, 2004). Our interest is on one feature of status hierarchies, namely status inequality, which has been a focus of scholarship on status for decades but has rarely been conceptualized as a defining feature of team structures on which to make between-group comparisons (e.g., DiTomaso et al., 2007). Instead, inequality is typically treated as the background for studying the enduring nature of stratification and the experiences of individuals occupying various social positions (e.g., Blackburn & Prandy, 1997). We explored the effects of variation in the level of status inequality between teams.

We provide a definition of status inequality and explore the way in which it shapes individual performance and physical health under two contingencies: an individual's status position and uncooperative behavior. Our hypotheses also outline the predicted relationship between status inequality and these outcome trajectories over time and were tested in a study of National Basketball Association (NBA) players across a 6-year period.

## Conceptual Background and Hypotheses

Status is a primary motivation (Barrick, Stewart, & Piotrowski, 2002), core to a person's self-worth and social esteem (Berdahl, 2007). Common to all status-based approaches is the implicit interpretation of status as a relationship between individuals in a social structure. Whether characterized by performance expectations (e.g., Berger et al., 1980), attributions of prestige (Perretti & Negro, 2006), or unearned privileges (Washington & Zajac, 2005), status is foremost a relative construct. Unlike an individual's reputation, for example, status cannot be defined as an isolated, individual attribute. Instead, status is a "positional or relational element of a social structure" (Washington & Zajac, 2005, p. 282). More specifically, status represents an individual's social standing or rank order among others within a social system, which is based on prestige, prominence, and respect (e.g., Anderson, John, Keltner, & Kring, 2001; Berger, Cohen, & Zelditch, 1972; Huberman, Loch, Öncüler, 2004; Perretti & Negro, 2008; Ridgeway & Walker, 1995; Washington & Zajac, 2005).

---

This article was published Online First August 16, 2010.

Amy M. Christie, School of Business and Economics, Wilfrid Laurier University, Waterloo, Ontario, Canada; Julian Barling, Queen's School of Business, Queen's University, Kingston, Ontario, Canada.

An earlier version of this article was presented at the Annual Meeting of the Academy of Management 2008. Financial support from the Social Sciences and Humanities Research Council of Canada to both authors is acknowledged gratefully. The data source for the study is STATS LLC, copyright 2007. We thank Nick Turner, Jana Raver, Natalie Allen, Karl Keane, Susan Brodt, William Cooper, Tina Dacin, Kelly Packalen, Roderick Iverson, Colette Hopton, Sean Tucker, Tony Carroll, Katherine Alexander, Alyson Byrne, and Stacie Byrne for constructive comments on this article.

Correspondence concerning this article should be addressed to Amy M. Christie, School of Business and Economics, Wilfrid Laurier University, Waterloo, Ontario, Canada N2L 3C5. E-mail: achristie@wlu.ca

Therefore, status relates each individual to all others within the social system. Recognizing status as an individual's place in an ordered distribution is fundamental to understanding how status influences team outcomes. Specifically, because status can be defined by the relative space between group members, we suggest that status differentials, and therefore the status distribution overall, provide a meaningful approach to understanding how status operates in team settings. Thus, we extend most previous research, which accounts for effects of an individual's status without considering the hierarchy from which it is drawn.

We define status inequality as the extent to which status positions in a hierarchy are dispersed. A team's degree of status inequality captures the overall pattern of status differentials among members. The study of status distributions and inequality is not new. Sociologists characterize societies by the extent to which they are stratified, where stratification is defined as hierarchically organized social inequality (Morris & Scott, 1996). Our approach differs from studies of stratification, which focus on the emergence of social injustice within a society, by conceptualizing status inequality as a distributional property that varies between teams and reflects status differences between those belonging to the same social class or strata of society. Variation in status inequality across teams is hypothesized to relate to individual outcomes.

### Status Inequality and Performance

Status inequality is foremost a measure of social distance. Sociologists have long since recognized that inequality represents not only relative advantage and prestige but a structure of relationships (e.g., Laumann & Guttman, 1966). In fact, recent approaches have conceptualized status inequalities by the social space that distances individuals from one another (Bottero & Prandy, 2003; Prandy, 1999). The resulting tendency is for individuals to feel detached from more distant others (Chattopadhyay, 1999; Tsui & O'Reilly 1989), particularly on comparisons of status, which are core to self-perceptions of inferiority and superiority (Locke, 2003, 2005). Individuals feel alienated from a target when they find their traits to be less desirable than those of the target, and they feel less similar and connected to targets with less desirable traits than themselves. Locke (2003) concluded that "target characteristics that maximize feelings of status (namely, undesirable characteristics) also tend to undermine feelings of solidarity" (p. 629). In teams, lack of unity can be problematic because performance is often maximized through collaboration.

As status inequality within a team increases, these status differences achieve greater relevance and importance, as evidenced by the disparity in resources accorded across positions. This is why personal characteristics are less likely to derive status value when members hold them equally (e.g., Bunderson, 2003). The motivation to achieve higher status is then stronger with greater status inequality because status is more salient and valuable. However, status striving is a self-focused pursuit, where emphasis is placed on individual advancement, often irrespective of collective interests (Huberman et al., 2004; Loch, Huberman, & Stout, 2000; Loch, Yaziji, & Langen, 2001), especially when individuals feel socially distanced from their teammates.

This logic is consistent with tournament theory, which suggests that tournaments can evoke self-focused motivation and uncooperative behavior. In tournament structures, pay across organizational positions is dispersed, so that as movement toward higher

level positions occurs, pay spreads widen and the positions become scarce (e.g., Lazear & Rosen, 1981; Rosen, 1986). In the same way that status becomes a prominent source of motivation as status inequality increases, an incentive to achieve higher compensation arises with greater pay dispersion. Support has been found for this basic tenet of tournament theory—that widening pay spreads motivates individual effort (see Devaro, 2006). However, because individuals advance according to relative performance (Lazear & Rosen, 1981), like status inequalities, tournaments can prompt prosocial and not prosocial motivation, deterring cooperation (De Dreu, 2007; Pfeffer, 1998). Lazear and Rosen (1981) referred to the tournament as a competition between rivals, such that prizes can be won on the basis of personal merit and the downfall of others. In some cases, individuals sabotage others to ensure that they are not eliminated from the tournament (Lazear, 1989).

Yet, this dismal perspective of inequality is contingent on team members working selfishly or uncooperatively. Researchers have suggested that tournaments are more likely to evoke such behaviors under various conditions, such as the perceived legitimacy or fairness of the social structure (e.g., Shaw, Gupta, & Delery, 2002), the nature of the task (Beersma et al., 2003), or an individual's position in the hierarchy (Lazear, 1989). Individual differences should also influence how people interpret and respond to competitive pressures and inequality (Beersma et al., 2003; Trevor & Wazeter, 2006).

Accordingly, we suggest that individual performance will be negatively related to status inequality only when selfish or uncooperative behaviors are adopted. Although perhaps not related to performance in all settings, in a team context requiring interdependence, such uncooperative behavior is detrimental (e.g., De Dreu, 2007; Shaw et al., 2002). Performance is jeopardized if members do not combine their efforts and capitalize on the necessary inputs of others or the combined potential of the team. For this reason, compensation researchers have argued that if disharmony is created by tournaments, individual performance suffers in settings where work is interdependent (e.g., Bloom, 1999; Cowherd & Levine, 1992; Shaw et al., 2002). If individuals work cooperatively on teams with greater status inequality, they can draw on the combined talents of their teammates, and any adverse consequences should be negated.

The relationship between status inequality and performance should be contingent not only on uncooperative behavior but also on an individual's status. Status theories recognize the benefits of high status. Status characteristics theory argues that high status is attributed to those group members who are expected to perform well; thus, high-status individuals receive more opportunities to contribute to task deliberation and decision making (e.g., Belliveau, O'Reilly, & Wade, 1996; Driskell & Mullen, 1990; Weisband, Schneider, & Connolly, 1995). Further, the performance of low-status individuals is often undervalued. Weisband et al. (1995) found that when high-status members were mislabeled to the group as low-status members, they received worse evaluations even when they gave equal input. Therefore, Weisband et al. concluded that status differences are related to people's expectations and how they interact with and evaluate others.

To the extent that status inequality is greater and the distinctions between positions are accentuated, the opportunities and favorable evaluations afforded (or denied) to those with high (or low) status should also be heightened (e.g., Berger, Fisek, Norman, & Zelditch, 1977). Kirchner and Davis (1986) manipulated status

inequality in experimental groups and found that groups with greater status inequality were more likely to use a *power-wins* approach to decision making, in which high-status individuals controlled decision outcomes. Conversely, equal status groups were more likely to make their decisions on the basis of the quality of input regardless of the contributor's status. As a result, under greater status inequality, lower status individuals should have relatively fewer developmental opportunities to enhance their self-efficacy and performance. Thus, we hypothesize the following:

*Hypothesis 1:* Status inequality is negatively associated with individual performance for individuals who behave uncooperatively and are in lower status positions on the team (i.e., for individual performance, there is a three-way Status Inequality  $\times$  Uncooperative Behavior  $\times$  Status interaction).

### Status Inequality and Absences

We propose that when team members act uncooperatively, greater status inequality also influences absences from work because of physical ill health for those with lower status. Greater status inequality may influence health by altering perceptions of social support that help alleviate stress (e.g., Karasek & Theorell, 1990) and through the onset of negative, stress-producing interactions (Cacioppo et al., 2002; S. Cohen, 2004; Rook, 1984). Competitive strategies, such as politicking and undermining, have been shown to be destructive to health (e.g., Cropanzano, Howes, Grandey, & Toth, 1997; Duffy, Ganster, & Pagon, 2002; Harris & Kacmar, 2005). When members of a collective do not share congruent goals (i.e., between the self and the collective), they do not develop the social support systems that occur naturally in cohesive collectives and help to protect health. Socially integrated individuals are healthier than their disintegrated counterparts who feel a sense of detachment and distress (Seeman, 1996, 2000; Uchino, 2004), which can interfere with neuroendocrine, cardiovascular, and immune bodily functions (S. Cohen, 2004).

However, as with performance, such negative effects of greater status inequality are contingent on team members behaving selfishly or uncooperatively. If such strategies are not adopted and individuals connect with their teammates despite inequalities, then any adverse effects of social isolation and stressful social interactions on health would be alleviated. As a second contingency, higher status individuals are also more likely to be protected from the potential social harms of greater status inequality. Low-status individuals tend to experience less favorable health (see Marmot, 2004); even in prestigious social classes, relative status is related to health. Redelmeier and Singh (2001) found that Academy Award winners live approximately 4 years longer than those who are nominated but never win the award.

Marmot (2004) argued that health disparities are, in part, explained by the inability of lower status individuals to fully connect and interact with others and to have autonomy over life events. First, in groups, high-status group members are accorded more attention (Weisband, Schneider, & Connolly, 1995). The fact that attention is not only derived from others with high status is noteworthy, given that both high- and low-status group members prefer to interact with those of higher status (Perretti & Negro, 2006). Not surprisingly, to protect these advantages, high-status members tend to avoid close association with lower status mem-

bers, resulting in downward discrimination and augmented social disintegration (Wilkinson, 2005).

Second, as discussed, lower status individuals are given fewer opportunities to control group decision making and are expected to defer to those with higher status. Research has linked health problems to a lack of autonomy at work and to lower personal control beliefs (e.g., Bailis, Segall, Mahon, Chipperfield, & Dunn, 2001; Karasek & Theorell, 1990). Control helps individuals to cope with stressors and influences health through psychobiological pathways (e.g., Karasek, 1979; Penninx et al., 1997). Accordingly, the physical health of low-status individuals should be more vulnerable to widening status inequality. One way that physical ill health manifests itself is in withdrawal behaviors, such as absenteeism (Johns, 2008).

*Hypothesis 2:* Status inequality is positively associated with absences due to physical ill health for individuals who behave uncooperatively and are in lower status positions on the team (i.e., for individual absences because of physical ill health, there is a three-way Status Inequality  $\times$  Uncooperative Behavior  $\times$  Status interaction).

### The Poor Get Poorer?

We also consider the temporal nature of individuals' experiences in teams. We propose that a Status Inequality  $\times$  Status interaction influences individuals' performance and absence trajectories across time. First, because low-status individuals receive fewer developmental opportunities and are evaluated more harshly under conditions of high-status inequality, their performance should suffer increasingly over time as these disadvantages compound. Those individuals consistently occupying low-status positions may eventually internalize the lowered expectations afforded to them and approach their work with less confidence and motivation. Wrzesniewski, Dutton, and Debebe (2003) suggested that "the experience of receiving evaluative information about the worth of one's job, role, or self is powerful. Its impact strikes at the core of the self and its worth in the organization" (p. 113). Likewise, over time the perceived legitimacy of these status positions should be reinforced or strengthened (Ridgeway & Walker, 1995), further perpetuating the biased performance opportunities against individuals who consistently occupy low-status positions.

*Hypothesis 3A:* Status inequality is associated with increasingly lower individual performance over time for individuals in lower status positions on a team.

Second, lower status individuals on teams with greater status inequality not only are disadvantaged in terms of performance opportunities and evaluations, but also face more social isolation and reduced control, the health effects of which can intensify across time. Low-status individuals who initially lack these social and personal resources should have more difficulty coping with stressors, enhancing the negative consequences of stress and impeding a full recovery (Gallo & Mathews, 2003; Hobfoll, 1989, 2001). Once weakened and with diminished resources, individuals risk increased reactivity to stressors (e.g., Christie & Barling, 2009; Gallo & Mathews, 2003; Holahan, Moos, Holahan, & Cronkite, 1999). Thus, we hypothesize that the positive relationship between status inequality and absences for low-status individuals

grows stronger over time as they consistently experience the disadvantages of their positions.

*Hypothesis 3B:* Status inequality is associated with increasingly more individual absences due to physical ill health over time for individuals in lower status positions on a team.

### Study Context

We used data from the NBA to test our hypotheses. Organizational research advocates the use of sport contexts to study organizational phenomena (Wolfe et al., 2005), and in the present study, professional basketball provided a rich empirical context. First, our hypothesized relationships are salient in sports; Wolfe et al. (2005) stated explicitly that

the pervasive competitiveness in sport may have relevance for a concept such as status contests. Team sports are eternally beset by the tension of team cooperation that is impeded by individuals who are more concerned with their own statistics, visibility, and heroics. The reverse of that situation also is noteworthy as when potential star individuals resist the lure of heroic individualistic visibility and facilitate team functioning. (p. 201)

Basketball is particularly conducive to studying cooperative behavior, which is “voluntary and discretionary. Players repeatedly face situations in which they can elect whether or not to cooperate” (Keidel, 1987, p. 593).

A second advantage is that performance is characterized by individual and team components. Third, boundaries exist that separate individuals into teams, which are differentiated from other functional areas in the organization. Thus, the team represents a logical unit in which to define social structure, avoiding cross-memberships that exist in some organizations. Fourth, although players by no means constitute the entire organization, studying sports teams does allow for a type of cross-organization analysis, allowing for greater generalizability. Fifth, because professional sports take place in the public realm, a wealth of data are publicly recorded. Finally, performance is (to some extent) objectively indicated, making the data amenable to research.

## Method

### Data Source

The primary data were acquired from STATS, a leading source of statistical information and analysis of sports leagues in the United States. We supplemented this data set with award records from the *Official NBA Guide* (Anderson & Reheuser, 2004, 2005, 2006; Carter & Hareas, 2001; Carter & Reheuser, 2002; Reheuser & Smith, 2003). We collected data across the six consecutive basketball seasons from 2000/2001 to 2005/2006 that occurred after a major NBA lockout that ended in 1999. The sample included all 30 NBA teams.<sup>1</sup> Following past research (Trevor, Gerhart, & Reilly, 2006), we enhanced the reliability of our measures by including only those players who played in at least 20 of the 82 games in a given season, which provided 2,280 individual-level data points from 635 players across the 6 sample years.

### Measures

**Status and status inequality.** To develop a measure of status inequality, we first needed to measure the status of each player on

a team. Status is contextually embedded, meaning that understanding its constitution requires knowledge of the research setting and what might be pertinent indicators of status in that setting (Bunder-son, 2003; B. P. Cohen & Zhou, 1991). Working from our original definition of status as a ranking based on prominence, prestige, and respect, we identified and measured five indicators of status for NBA players in a given season: salary, games started, tenure, awards/recognitions, and celebrity status.

First, the extravagance of player salaries in professional sports receives public attention and scrutiny. In fact, some have criticized players for becoming too focused on money and abandoning their intrinsic motivations (e.g., Pierce, Thomsen, & McCallum, 2005; Rosenberg, 2007). Facilitating the salience of salaries is their public disclosure, allowing comparisons within and across teams. Accordingly, salary is a source of prominence, and because final salaries are negotiated individually, they also indicate respect from those who make payroll decisions.

The second indicator used was the number of games that a player started. During the course of play, five players participate in a game at any one time; however, there are a total of 12 active players on a team. Players are distinguished as starters (designated to start a game) versus nonstarters (playing with greater irregularity). Starters are afforded higher performance expectations and are likely to receive more recognition by constituents, including owners, coaches, teammates, rival teams, the media, and fans. Certainly, the way in which starting players are introduced and announced to the public prior to each game reinforces this prominence. Likewise, an NBA player’s designation as a starter is an indicator of his talent as perceived by organizational decision makers and thus signals that he is in a respected position.

Third, organizational tenure is often considered a marker of status, where individuals with longer tenure are more likely to have social power (Mehra, Kilduff, & Brass, 2001) and carry valuable informal knowledge (Rollag, 2004). A player’s tenure is consequential in professional sports because of high turnaround rates; after spending a few seasons in the league, players may be forced to retire (Hoffer, 2006; Witnauer, Rogers, & Saint Onge, 2007). Similarly, players’ abilities decline with age, forcing the exit of older players (Groothuis & Hill, 2004). However, although older players typically exhibit performance declines (Berri, Schmidt, & Brook, 2006), they bring a wisdom to the game (e.g., Sabino, 2005) and are credited with a *mental toughness* underdeveloped in less tenured players (Wolff, 2001). Longer tenured players are those who have been successful in the sport. NBA salary schedules, which award longer tenured players with higher minimum salaries, attest to the respect given to these players. Thus, we used tenure in the league (rather than tenure on a specific team) as an indicator of status.

Next, the awards and recognitions that players receive denote prestige (Perretti & Negro, 2006). External judges of the game, such as sports writers, broadcasters, and fans are responsible for choosing the winners of awards presented to players throughout the course of the season (i.e., all-star game selections and awards, player of the week awards, and player of the month awards) and at the season’s end (i.e., most valuable player, rookie of the year, defensive player of the year, sixth-man award, most improved player, sportsmanship award, citizenship award, all NBA team

<sup>1</sup> The total number of teams in the league varied slightly across years.

selections, selection for the all NBA rookie team, and selection for the all NBA defensive team). Award prestige differs (i.e., being deemed the league's most valuable player is more prestigious than being player of the week); thus, to create a measure of total player awards, we attributed greater weight to major awards (as defined by the *Official NBA Guide*) and distinguished between medium and minor awards (i.e., those awarded to players at an end of the season ceremony vs. awards for player of the week and month). In a given season, players were given one point for minor awards (e.g., player of the week award), two points for medium level awards (e.g., an all-NBA team selection), and three points for major awards (e.g., most valuable player).

Last, professional basketball is a public occupation, which can result in fame for some. Critics have suggested that the quest for superstardom has become an overly dominant concern. Although celebrity status is unlikely equally desired, those garnering media attention are likely to be attended to in the organization, particularly because popularity or *star power* is significantly related to fan attendance and gate revenues (Berri et al., 2006). Therefore, an indicator of prominence is celebrity. To proxy celebrity, we tabulated the number of articles mentioning the player's name in *Sports Illustrated* magazine for a given season. *Sports Illustrated* is a weekly American sports magazine. A similar procedure for ascribing attention from media reports to public figures has been used in past studies of organizations (e.g., Hayward & Hambrick, 1997).

We verified the relevance of these status indicators by surveying 11 prominent North American sportswriters for the NBA. Of the journalists, 10 were male and one was female, and their experience as sportswriters for the NBA ranged from 1 to 35 years. Participants were given the definition of status and asked to rate on a scale from 1 (*not well at all*) to 5 (*extremely well*) how well each of the five status indicators discussed represents status in the NBA (participants were also given the option to select *don't know*). The mean ratings for each of the indicators are as follows: salary ( $M = 4.55$ ,  $SD = 0.82$ ), games started ( $M = 3.82$ ,  $SD = 0.60$ ), tenure ( $M = 3.40$ ,  $SD = 0.97$ ), awards ( $M = 4.64$ ,  $SD = 0.51$ ), and celebrity ( $M = 4.36$ ,  $SD = 0.67$ ); for the indicators amalgamated, the mean was as follows:  $M = 4.13$ ,  $SD = 0.38$ . The participants strongly agreed on their overall status ratings ( $r_{wg} = .93$ ). The correlations between status indicators appear in Table 1.

The five indicators were used to create a status measure for each player observation. We followed past field research in adapting Berger et al.'s (1977) methods for creating status composites in simulation studies (e.g., Berger & Fisek, 2006) in a field setting (Bunderson, 2003). It is noteworthy that this method is suitable for "multicharacteristic status situations . . . [where] the characteristics may be either consistent or inconsistent" (Berger et al., 1977, p. 61); thus, we do not assume that the status indicators are necessarily correlated.

A player's score for each indicator was divided by the team maximum value (e.g.,  $SALARY/SALARY_{team\_max}$ ). This determined the indicator strength for each player observation, ranging from 0 to 1. The indicators were then equally weighted and combined into a single status score with the formula that

follows, which reflects the notion that as the number of status indicators accounted for increases, each indicator provides little additional unique information about a player's status. This attenuation principle is an underlying tenet of status characteristics theory (Berger et al., 1977). Last, consistent with the definition of status as a position in an ordered distribution, we placed the scores on a scale from 0 to 1 by dividing a player's status score by the maximum score for his team (Bunderson, 2003). See the equation at the bottom of the page, where  $SS_{i,k}$  is the status score for player observation  $i$ ,  $s(SALARY_{i,k})$  is the weighted status indicator strength of player observation  $i$ 's salary,  $s(STARTS_{i,k})$  is the weighted status indicator strength for the number of games started by player observation  $i$ ,  $s(TENURE_{i,k})$  is the weighted status indicator strength of player observation  $i$ 's tenure,  $s(AWARDS_{i,k})$  is the weighted status indicator strength for player observation  $i$ 's total awards,  $s(CELEB_{i,k})$  is the weighted status indicator strength for the celebrity status of player observation  $i$ , and  $SS_{team\_max,k}$  is the maximum status score on team  $k$ .

We operationalized status inequality, using the Gini coefficient (formula next), a common metric of inequality used in organizational studies (Harrison & Klein, 2007).

$$G(SS)_k = \frac{\sum_{i=1}^n |SS_i - SS_j|}{2 * n^2 * SS_{mean}}$$

where  $G(SS)_k$  is the Gini coefficient of status scores for team  $k$ ,  $SS_{mean}$  is the mean status score on team  $k$ , and  $n$  is the total number of players on team  $k$ . The Gini coefficient is valued between 0 and 1, where 0 represents perfect status equality, and 1 represents perfect status inequality; teams with higher Gini coefficients have greater inequality.

**Uncooperative behavior.** We used player transgressions to measure uncooperative behavior. Transgressions included suspensions from play and ejections from a game (given for breaking a number of rules, including physical contact restrictions, fighting, assaulting officials, and general unsportsmanlike behavior). Transgressions reflect unproductive, uncooperative, and noninstrumental team behavior. Unlike most personal fouls, which also penalize players for breaking rules, transgressions are not the result of strategic play or a focus on team-oriented outcomes; they are inconsistent with team goals. Moreover, Kendall (2008) argued that players may perceive transgressions to be a source of publicity and external popularity, ultimately heightening their status in the league. This is likely because transgressions elicit media and fan attention. Therefore, transgressions are a proxy for a self-orientated or uncooperative playing style; they represent a tendency for players to focus on themselves to the detriment of their team. A recent public apology made by a suspended NBA player illustrates these effects; he stated, "I apologize to my teammates, our fans, our ownership and the N.B.A. for the negativity this has created and the poor example that I set" (Associated Press, 2007, p. SP5). Transgressions were adjusted for the number of games played.

$$SS_{i,k} = \frac{[1 - (1 - s(SALARY_{i,k})) * (1 - s(STARTS_{i,k})) * (1 - s(TENURE_{i,k})) * (1 - s(AWARDS_{i,k})) * (1 - s(CELEB_{i,k}))]}{SS_{team\_max,k}}$$

Table 1  
Means, Standard Deviations, and Correlations

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>Status indicators</b>																	
1. Awards	0.461	1.64	—														
2. Celebrity status	1.400	3.25	.56	—													
3. Games started	34,670	30.66	.35	.34	—												
4. Salary	4,444,226	4,182,800	.39	.47	.45	—											
5. Tenure	6.647	3.70	.04	.13	.02	.36	—										
<b>Study variables</b>																	
1. Ethnicity (AA = 1)	0.769	0.42	—														
2. Center (Center = 1)	0.138	0.35	-.22	—													
3. Guard (Guard = 1)	0.469	0.50	.16	-.38	—												
4. Prior absences	0.083	0.15	-.06	.08	-.07	—											
5. Prior performance (Eff)	0.424	0.10	.06	.01	-.01	-.21	—										
6. Prior performance (Win)	0.160	0.07	.03	.02	-.02	-.22	.85	—									
7. Pay dispersion	29,891	17.24	.02	-.02	.00	-.02	.04	.03	—								
8. Mean status	0.599	0.06	.04	.05	.00	-.01	.01	.00	-.48	—							
9. Winning percentage	0.016	0.28	-.02	.00	.02	-.08	.14	.15	.02	-.02	—						
10. Ejections	0.003	0.01	.07	.02	-.05	-.02	.14	.09	-.01	.01	-.01	—					
11. Suspensions	0.002	0.01	.09	.01	-.10	-.01	.08	.04	-.02	-.01	.02	.36	—				
12. Status	0.605	0.26	.16	.02	.01	-.25	.54	.41	-.08	.19	-.02	.15	.09	—			
13. Status inequality	0.281	0.05	-.02	-.04	.00	.01	.01	.02	.40	-.77	-.01	-.01	.02	-.13	—		
14. Absences	0.086	0.15	-.07	.09	-.08	.13	-.14	-.12	-.03	.02	-.01	.02	.08	-.24	.01	—	
15. Performance (Eff)	0.420	0.10	.04	.00	.01	-.15	.76	.61	.00	.04	.14	.12	.03	.51	-.04	-.21	—
16. Performance (Win)	0.158	0.07	.01	.02	.00	-.15	.62	.71	.00	.04	.17	.07	-.02	.41	-.03	-.24	.85

Note. N = 1,574 observations (listwise deletion). Correlations of .06 are significant at the  $p < .05$  level. AA = African American; Eff = player efficiency; Win = player win score.

Table 2  
Parameter Estimates for Performance Analyses

Variable	Performance (efficiency)						Performance (win score)					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	$\gamma$	SE	$\gamma$	SE	$\gamma$	SE	$\gamma$	SE	$\gamma$	SE	$\gamma$	SE
Intercept	.05**	.02	.05**	.02	.05**	.02	.02	.03	.03	.03	.03	.03
Ethnicity	-.03	.02	-.03	.02	-.03~	.02	-.02	.03	-.02	.03	-.02	.03
Absences	-.10**	.03	-.10**	.03	-.10**	.03	-.16**	.04	-.15**	.04	-.16**	.04
Prior performance	.63**	.03	.62**	.07	.62**	.07	.29**	.04	.29**	.04	.29**	.04
Winning percentage	.06**	.02	.06**	.02	.06**	.02	.12**	.02	.12**	.02	.11**	.02
Pay dispersion	-.02	.02	-.02	.02	-.02	.02	-.02	.02	-.02	.02	-.02	.02
Status	.17**	.03	.17**	.03	.17**	.03	.22**	.03	.21**	.03	.21**	.03
Mean status	-.06~	.03	-.06~	.03	-.06~	.03	-.05	.03	-.05	.03	-.04	.03
Status inequality	-.07*	.03	-.07*	.03	-.07*	.03	-.05	.03	-.05	.03	-.06~	.03
Status $\times$ Status Inequality			.01	.02	.02	.02			.04~	.02	.04*	.02
Suspensions			-.01	.02					-.03	.02		
Suspensions $\times$ Status			-.02	.02					-.03	.02		
Suspensions $\times$ Status Inequality			-.02	.02					-.01	.02		
Suspensions $\times$ Status $\times$ Status Inequality (Hypothesis 1)			.05*	.02					.04*	.02		
Ejections					.03	.02					.03	.02
Ejections $\times$ Status					-.01	.02					-.03	.03
Ejections $\times$ Status Inequality					-.01	.03					-.02	.02
Ejections $\times$ Status $\times$ Status Inequality (Hypothesis 1)					.04~	.02					.06**	.02
Random components												
Level 1 residual	.37**	.03	.36**	.01	.36**	.03	.32**	.02	.31**	.02	.31**	.02
Level 2 intercept	.03	.03	.03	.03	.03	.03	.29**	.04	.29**	.04	.29**	.04
Random slope (status inequality)	.00	.01	.00	.01	.01	.01	.00	.01	.01	.01	.00	.01
Covariance (intercept and slope)	.00	.01	.00	.01	.00	.01	.01	.01	.01	.01	.01	.01
LR $\chi^2$	1,674.62**		10.03~		4.36		1,498.87**		13.75*		10.83~	

Note. LR $\chi^2$  is the change in the  $-2$  log likelihood statistic across models. Model 1 was compared with the null model; Models 2 and 3 were compared with Model 1.  
~  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

**Dependent variables.** Hypotheses were tested with two performance measures. First, we used a metric of player efficiency advocated by the NBA (Berri et al., 2006). It is calculated as follows:

$$PP_i = [POINTS_i + REB_i + ASST_i + BLK_i + STL_i - (FGA_i - FGM_i) - (FTA_i - FTM_i) - TURN_i],$$

where  $PP_i$  is player observation  $i$ 's performance,  $POINTS_i$  is player observation  $i$ 's total points scored,  $REB_i$  is number of rebounds made by player observation  $i$ ,  $ASST_i$  is the number of assists for player observation  $i$ ,  $BLK_i$  is the number of blocked shots by player observation  $i$ ,  $STL_i$  is the number of steals made by player observation  $i$ ,  $FGA_i$  is the number of field goals attempted by player observation  $i$ ,  $FGM_i$  is the number of field goals made by player observation  $i$ ,  $FTA_i$  is player observation  $i$ 's total free throw attempts,  $FTM_i$  is player observation  $i$ 's total free throws made, and  $TURN_i$  is the total turnovers made by player observation  $i$ .

Second, economists have developed and validated a measure (win score) that captures a player's overall contribution to team wins:

$$PW_i = \left[ POINTS_i + REB_i + \frac{1}{2}ASST_i + \frac{1}{2}BLK_i + STL_i - FGA_i - \frac{1}{2}FTA_i - TURN_i - \frac{1}{2}PF_i \right],$$

where  $PW_i$  is player observation  $i$ 's win score, and  $PF_i$  is player observation  $i$ 's personal fouls.

Because playing time and position provide players with non-equivalent performance opportunities, we also adjusted both performance measures for the number of minutes played and the player's position on the team (Berri et al., 2006).

We used player absences due to injury or illness to measure physical health. Absenteeism is a common metric of health and well-being. However, employees may miss time for reasons other than injury or illness. This is a small threat in the present research because teams have private doctors who assess a player's physical condition, and teams release the nature of the absence. We excluded cases due to reasons other than injury or illness. The demanding nature of the profession makes injuries commonplace. Although occurring for accidental reasons, evidence shows that psychosocial factors, such as life stress, and relational factors, including social support, predict athletic injury as well (see Williams, 2001, for a review). Likewise, absences due to illnesses are a direct measure of physical health. Absences were measured as the number of occurrences of games missed. Because players who receive more playing time are at greater risk for injury and because those who are not expected to play need not be officially absent when unable to play, we divided absences by the total number of games in which a player appeared.

**Control variables.** The mean of an attribute is incorporated in the calculation of inequality. Therefore, without controlling for the

mean level of status on a team, we would be unable to separate the effects of status inequality from those of mean team status. Following recommendation, we controlled for a team's mean status in all analyses (Harrison & Klein, 2007). In addition, given past research showing a relationship between pay dispersion and performance (Bloom, 1999), we considered the relationship between status inequality and outcomes after controlling for its effects. We measured pay dispersion as the salary of the highest paid player divided by the salary of the lowest paid player. Ethnicity is related to health and well-being (see Stanton, Revenson, & Tennen, 2007), and thus was controlled. In analyses of player absences, we controlled for dominant position played. Injuries may interfere with performance (Berri & Krautmann, 2006), and thus absences were included as a covariate in the performance models. Likewise, team winning percentage (i.e., the number of team wins divided by the number of games in the season) controlled for the possibility that being on a winning or losing team may affect performance (Bloom, 1999). Finally, past performance and absences are probable predictors of future performance and absenteeism; thus, we controlled for performance and absences in the previous season.

## Results

### Analytic Strategy

The temporal nesting of our data implies that ordinary least squares regression's assumption of independent observations may be violated. We conducted our analyses using multilevel modeling in Mplus 5.1, which provides parameter estimates analogous to regression coefficients, but is appropriate for nested datasets. We first calculated interclass correlations (ICC) to determine the extent to which our dependent variables were clustered by team membership and across time. The ICC for performance nested within teams was .01 (for efficiency and win score), suggesting that team membership accounts for a very small portion of the variance in performance. Accounting for performance across sample years revealed that performance was correlated across time periods; ICC = .70 (efficiency) and ICC = .67 (win score), necessitating the use of multilevel modeling. A similar pattern emerged for player absences, where observations were largely independent across team membership; ICC = .01, yet, significantly correlated across league seasons; ICC = .28.

We used a series of multilevel equations that accounted for the nested observations of time periods (Level 1) within individuals (Level 2). Comparisons between models were made using the change in the  $-2 \log$  likelihood statistic ( $LR\chi^2$ ), which follows a  $\chi^2$  distribution and indicates the relative fit of nested models (Singer & Willett, 2003). To help avoid problems of multicollinearity, we followed others in standardizing all measures, which simultaneously centered them on their sample means (e.g., Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Ployhart, Weekley, & Baughman, 2006). Descriptive statistics are presented in Table 1.<sup>2</sup>

### Hypothesis Tests

**Hypothesis 1: Status inequality—Performance analyses.** We expected an interaction between status inequality, uncooperative behavior, and status on performance. The null model indicated significant random variation across the sample years in the

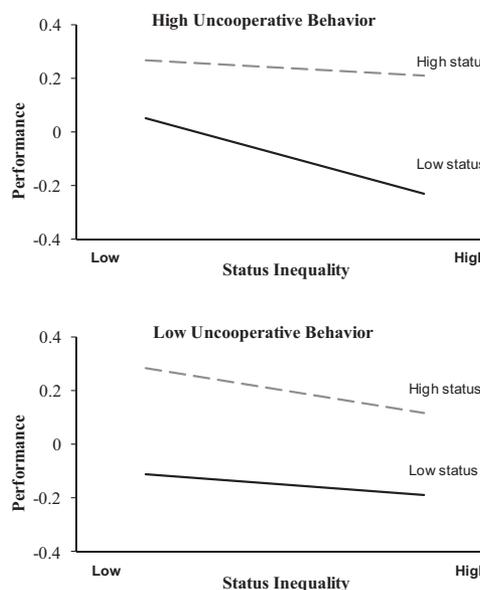


Figure 1. For performance, there is a Status  $\times$  Status Inequality  $\times$  Uncooperative Behavior interaction. Low status inequality, status, and uncooperative behavior (high status inequality, status, and uncooperative behavior) refer to status inequality, status, and uncooperative behavior one standard deviation below (or above) the mean. Plotted interactions are shown for ejection and player efficiency measures of uncooperative behavior and performance, respectively.

performance intercept and status inequality-performance slope components, and thus these parameters were retained in further analyses (see Table 2). Hypothesis 1 was tested by entering a three-way interaction term into the multilevel analyses after controlling for main effects, two-way interactions, and controls. Separate models were estimated for both uncooperative behavior and performance measures. Supporting Hypothesis 1, all interactions were significant. Probing the interaction at one standard deviation above and below the mean of the variables (Figure 1) showed a negative relationship between status inequality and performance for low-status players who played uncooperatively (efficiency and ejections  $b = -.14, p < .01$ , efficiency and suspensions  $b = -.15, p < .01$ , win score and ejections  $b = -.18, p < .01$ , and win score and suspensions  $b = -.15, p < .01$ ). By contrast, no relationship emerged between status inequality and performance for low-status players when uncooperative behavior was low (efficiency and ejections  $b = -.04, ns$ , efficiency and suspensions  $b = -.01, ns$ , win score and ejections  $b = -.02, ns$ , and win score and suspen-

<sup>2</sup> Although correlations of .9 (Tabachnick & Fidell, 2001) between predictor variables are often used as a benchmark to judge whether multicollinearity may be a relevant statistical concern, because of the relatively high correlation between status inequality and mean status, we conducted additional tests to determine whether multicollinearity may be present in our models. We found that the variance inflation factors were well below conventional standards (i.e., 10) for detecting multicollinearity, with the most extreme case in any of the analyses being 3.20. Similarly the tolerance levels for all analyses were above those that would prove worrisome (i.e., .10), with .31 being the lowest in any of the analyses.

sions  $b = -.03$ ,  $ns$ ). Likewise, the simple slopes for high-status players did not differ from zero.

**Hypothesis 2: Status inequality—Absences analyses.** Hypothesis 2 related status inequality to absences due to physical ill health. Estimating the null model for absences showed that the absences intercept varied significantly across sample years; yet, the slope components (between status inequality and absences) did not, and thus were fixed in further analyses (see Table 3 for models). As can be seen in Table 3, the interaction between status inequality, ejections, and status was significantly associated with absences. Figure 2 shows that status inequality was positively related to the absences of low-status players under conditions of high ejections ( $b = .31$ ,  $p < .01$ ), but not under conditions of low ejections ( $b = -.13$ ,  $ns$ ). For high-status players, the simple slopes relating status inequality to absences did not differ significantly from zero at either high or low levels of ejections. A marginally significant relationship emerged for the interaction between status inequality, suspensions, and status. However, although for low-status players the positive relationship between status inequality and absences was greater when suspensions were higher, it did not differ significantly from zero when suspensions were low ( $b = .01$ ,  $p < ns$ ) or when they were high ( $b = .10$ ,  $p < ns$ ). Evaluating the simple slopes for high-status players showed that the relationship between status inequality and absences was positive when suspensions were low ( $b = .15$ ,  $p < .05$ ) and not significantly different from zero when suspensions were high ( $b = .03$ ,  $ns$ ). Thus, the data provide only partial support for Hypothesis 2.

**Hypothesis 3: Longitudinal analyses.** Our final hypotheses linked status inequality and status to individuals' performance and absences trajectories over time. To test these hypotheses, we used a multilevel model for individual growth with our six NBA seasons as time points (centered on time 1). This approach allowed us to model within-individual change over time (Level 1) and between individual differences in change over time (Level 2) simultaneously (e.g., Singer & Willet, 2003). The independent variable slope (coded as 2000 = 0, 2001 = 1, 2002 = 2, 2003 = 3, 2004 = 4, and 2005 = 5) denotes linear time. Thus, the estimated intercept of the model represents the sample average starting point of the dependent variable in 2000, whereas the estimates for slope represent the sample average rate of change in the dependent variable from 2000 to 2005 (conditional on the remaining variables). Modeling linear time as a variable allows us not only to consider the relationship between time and performance and absences (i.e., the sample average rate of change in performance/absences across time), but also how other variables moderate this relationship. In other words, we can test the effects of interactions between the slope variable and other variables on the dependent variables. To investigate our hypotheses about the relationship between status inequality, status, and the rate of change in performance and absences, we created interaction terms between these variables and slope.

Status inequality and status were modeled as time-varying predictors, meaning that a player was permitted to have different scores on these variables for each season (Singer & Willet, 2003).

Table 3  
Parameter Estimates for Absences Due to Physical Ill-Health Analyses

Variable	Absences					
	Model 1		Model 2		Model 3	
	$\gamma$	SE	$\gamma$	SE	$\gamma$	SE
Intercept	-.01	.03	.00	.03	-.01	.03
Guard	-.05	.03	-.04	.03	-.05 <sup>~</sup>	.03
Center	.07*	.03	.07*	.03	.07 <sup>~</sup>	.04
Ethnicity	.00	.03	-.01	.03	-.01	.03
Prior absences	-.04	.03	-.04	.03	-.04	.03
Pay dispersion	-.02	.02	-.01	.02	-.01	.02
Status	-.25**	.03	-.26**	.03	-.26**	.04
Mean status	.10*	.04	.11*	.04	.11**	.04
Status inequality	.07 <sup>~</sup>	.04	.07 <sup>~</sup>	.04	.09*	.04
Status × Status Inequality			.02	.03	-.01	.03
Suspensions			.09**	.02		
Suspensions × Status			-.05*	.03		
Suspensions × Status Inequality			-.01	.03		
Suspensions × Status × Status Inequality (H2)			-.05 <sup>~</sup>	.03		
Ejections					.02	.03
Ejections × Status					.01	.02
Ejections × Status Inequality					.10*	.04
Ejections × Status × Status Inequality (H2)					-.12**	.04
Random components						
Level 1 residual	.57**	.03	.56**	.03	.56**	.12
Level 2 intercept	.14**	.04	.14**	.04	.14*	.07
Random slope (status inequality)	—	—	—	—	—	—
Covariance (intercept and slope)	—	—	—	—	—	—
LR $\chi^2$	2074.47**		13.92*		14.21*	

Note. Model 1 was compared to the null model; Models 2 and 3 were compared to Model 1. Dashes reflect fixed parameters based on results of null models. H2 = Hypothesis 2.  
<sup>~</sup>  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

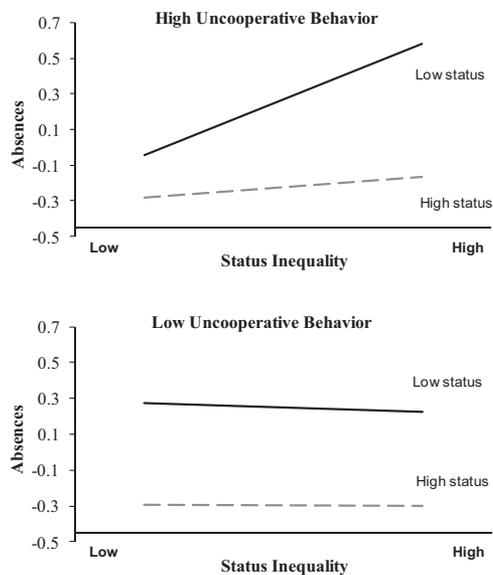


Figure 2. For absences, there is a Status  $\times$  Status Inequality  $\times$  Uncooperative Behavior interaction. Low status inequality, status, and uncooperative behavior (high status inequality, status, and uncooperative behavior) refer to status inequality, status, and uncooperative behavior one standard deviation below (or above) the mean. Plotted interactions are shown for the ejection measure of uncooperative behavior.

The results were examined by plotting the significant interactions and comparing prototypical trajectories of players under four conditions: when players continuously occupy (a) high-status positions on teams with high status inequality, (b) high-status positions on teams with low status inequality, (c) low-status positions on teams with high status inequality, and (d) low-status positions on teams with low status inequality. When probing an interaction with time-varying predictors, many other conditions implied by the models could also be examined (Singer & Willet, 2003). For example, one may wish to consider the average trajectory of a high-status player whose team changes from having high to low status inequality in 2002; however, to illustrate the findings in relation to our hypotheses, we present only these four contrasts.

The results for performance appear in Table 4. Examining the coefficient for the slope term after accounting for control variables revealed that on average player performance declined over time (conditional on the remaining independent variables). An interaction emerged between the slope term, status inequality, and status (marginally significant for win score). This fitted trajectory (at one standard deviation above and below the means; Figure 3), shows that, on average, consistently low-status players on teams with consistently high status inequality experienced performance declines across time (efficiency  $b = -.41$ ,  $p < .01$ , and win score  $b = -.25$ ,  $p < .01$ ), whereas performance did not change across time for players who were consistently in low-status positions on teams with low status inequality (efficiency  $b = .05$ ,  $ns$ , and win score  $b = .06$ ,  $ns$ ). Under consistently high status inequality, the slope of the declining trajectory was steeper for players in consistently low compared to high-status positions (efficiency  $b = -.41$ ,  $p < .01$ , vs.  $b = -.30$ ,  $p < .01$ , and win score  $b = -.25$ ,  $p < .01$  vs.  $b = -.17$ ,  $p < .01$ ).

Table 5 displays the findings for Hypothesis 3B. We found no effect of the slope term; on average, player absences were static over time (at centered values of the independent variables). However, the results showed a significant relationship between status inequality, status, and the slope of absences across time (see Figure 4). Contrary to our hypothesis, players consistently occupying low-status positions on teams with higher status inequality missed increasingly fewer games ( $b = -.02$ ,  $p < .01$ ), whereas those on teams with lower status inequality did not ( $b = 0$ ,  $p < ns$ ). Further, although players consistently occupying high-status positions on teams with greater status inequality were absent more often than those on teams with lesser status inequality in each season, the rate of change in the absences across time did not differ between these two groups (for high status inequality  $b = .01$ ,  $p < ns$ , and for low status inequality  $b = .01$ ,  $p < ns$ ).

## Discussion

Despite calls to bring status to organizational research (Pearce, 2001; Ravlin & Thomas, 2005), the applicability of status theories to past studies (e.g., Berdahl, 2007; Bunderson, 2003), and the role of status in organizations (Pfeffer, 1998), it is surprising that with few exceptions (e.g., Bacharach, Bamberger, & Mundell, 1993; Washington & Zajac, 2005), very little research has explicitly studied status in teams. Our study addresses this void. The results suggest that the relationship between status inequality and outcomes within the team is complex. When low-status individuals exhibited more uncooperative behavior, greater status inequality was associated with weaker performance and, in some cases, more absences. Yet, status inequality was not associated with adverse outcomes when uncooperative behavior was low and players had high status.

Mixed evidence emerged for the dynamic effects of status inequality on performance and absences trajectories. As hypothesized, status inequality thwarted performance across time for lower status players in particular. The trajectory of absences was less consistent with our hypotheses: for higher status players, absences were more frequent among those on teams with greater status inequality. By contrast, low-status players on teams with greater status inequality saw their absences decline, becoming more similar to low-status players on teams with lesser status inequality. Together these results suggest that low-status players played more games across time, however, they performed worse in those games. Although unexpected, this pattern may have resulted because these players reside in the most vulnerable positions—they begin with the lowest performance records and most missed games, and thus feel pressure to play whether ill or injured to secure their jobs. This would be consistent with research that shows that sickness presenteeism is correlated with job insecurity (Caverley, Cunningham, & MacGregor, 2007).

## Strengths, Limitations, and Future Research Directions

Inherent in this study are numerous strengths. Objective measures of the outcome variables were used. The dataset allowed for the control of potentially biasing variables (e.g., past performance, past absences, team performance), and for examining the effects of

Table 4  
Parameter Estimates for Performance Trajectory<sup>a</sup>

Variable	Performance (efficiency)				Performance (win score)			
	Model 1		Model 2		Model 1		Model 2	
	$\gamma$	SE	$\gamma$	SE	$\gamma$	SE	$\gamma$	SE
Intercept	19.90**	0.19	19.89**	0.19	7.31**	0.14	7.31**	0.14
Slope	-0.22**	0.05	-0.20**	0.05	-0.11**	0.03	-0.11**	0.03
Ethnicity	-0.21	0.35	-0.21	0.35	-0.07	0.25	-0.07	0.25
Absences	-2.51**	0.71	-2.63**	0.73	-2.45**	0.57	-2.53**	0.59
Winning percentage	0.90~	0.50	0.79	0.49	0.67~	0.37	0.60~	0.36
Pay dispersion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Status	5.04**	0.41	5.29**	0.58	3.05**	0.30	3.14**	0.43
Mean status	-1.85	1.80	-1.88	1.80	-1.17	1.33	-1.16	1.33
Status inequality	0.45	2.30	5.41*	2.67	0.18	1.54	4.43*	1.90
Status Inequality $\times$ Slope			-2.76**	0.71			-2.03**	0.54
Status $\times$ Slope			-0.10	0.17			-0.05	0.12
Status Inequality $\times$ Status			-9.45	7.16			-3.38	5.31
Status Inequality $\times$ Status $\times$ Slope (Hypothesis 3A)			5.50*	2.65			3.28~	1.90
Random components								
Level 1 residual	5.30**	0.25	5.28**	0.25	2.96**	0.15	2.95**	0.15
Level 2 intercept	11.74**	1.12	11.48**	1.09	6.53**	0.60	6.40**	0.60
Random slope	0.38**	0.07	0.37**	0.07	0.17**	0.04	0.16**	0.04
Covariance (intercept and slope)	-0.67**	0.25	-0.64**	0.24	-0.40**	0.13	-0.39**	0.13
LR $\chi^2$	799.53**		16.10**		655.62**		15.66**	

Note. Model 1 was compared to the null model; Model 2 was compared to Model 1.

<sup>a</sup> Because standardizing dependent measures in growth modeling is inappropriate, the dependent measure represents performance per game.

~  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

status inequality across multiple levels of analysis, including time. In fact, gaining an understanding of the role of time may be one of the greatest oversights in organizational research (Ancona, Goodman, Lawrence, & Tushman, 2001). Nevertheless, a number of limitations should be noted. First, sample characteristics may limit generalizability. NBA players are elite athletes in highly visible occupations. Although we identified status markers relevant in the NBA, their salience may be enhanced due to public visibility. The extent to which status cues are less explicit in other organizational settings may limit generalizability. Furthermore, the NBA employs only males. Given that men and women may approach relation-

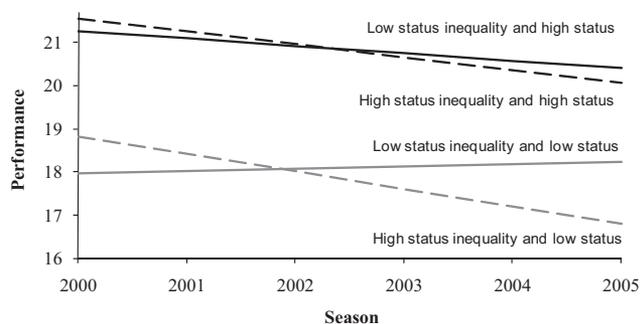


Figure 3. Individual growth trajectory for performance. For all time points, low status inequality (high status inequality) refers to status inequality one standard deviation below (or above) the centered mean, and low status (or high status) refers to status at one standard deviation below (or above) the centered mean. Plot is shown for the player efficiency measure of performance.

ships differently (e.g., Connell, 2002), future research should consider whether these findings can be extended to females.

Perhaps the most productive way to interpret the findings is to consider the types of organizational teams most similar to sports teams. Sports teams may be best classified as performance or action teams, which are often characterized by concentrated bursts of effort, complex tasks, visible output or audiences, expert or specialized members, and/or working in challenging circumstances (e.g., Sundstrom, McIntyre, Halfhill, & Richards, 2000). Wolfe et al. (2005) suggest that “generalizing from a sport team to other types of teams must consider the extent to which the teams in either setting are characterized by innate ability, insulation from the rest of the organization, and visible production” (p. 202). Basketball teams specifically resemble teams in organizations that rely on reciprocal interdependence and require cooperation (Keidel, 1987). Accordingly, our results may be most reflective of interdependent teams of individuals who are hired for their expertise or ability, and whose combined performance is the organization’s product (e.g., airplane cockpit teams, surgery teams, military teams, firefighting teams, creative teams) as opposed to those with more independent or physically distant members.

Second, the results of the study should also be interpreted mindful of unmeasured intervening variables. We drew on multiple theories that suggest that status structures are related to motivation and behavior under various conditions; however, given the constraints of archival data, we could not measure individual cognitions, motivation, or social interactions directly. For example, we argue that the longitudinal interaction between status and status inequality emerges in part because low-status individuals internalize the expectations of others, lowering their self-efficacy

Table 5  
Parameter Estimates for Absences Due to Physical  
Ill-Health Trajectory<sup>a</sup>

Variable	Absences			
	Model 1		Model 2	
	$\gamma$	SE	$\gamma$	SE
Intercept	.12**	.02	.12**	.01
Slope	-.01	.01	.00	.00
Guard	-.01	.01	-.01	.01
Center	.04**	.02	.04*	.02
Ethnicity	-.01	.01	-.01	.01
Pay dispersion	.00	.00	.00	.00
Status	-.17**	.03	-.26**	.04
Mean status	.39**	.11	.37**	.11
Status inequality	.43**	.13	.60**	.15
Status Inequality $\times$ Slope			-.09**	.03
Status $\times$ Slope			.03**	.01
Status Inequality $\times$ Status			-.93*	.41
Status Inequality $\times$ Status $\times$ Slope (Hypothesis 3B)			.26*	.13
Random components				
Level 1 residual	.02**	.01	.02**	.00
Level 2 intercept	.01	.01	.01	.01
Random slope	.00	.00	.00	.00
Covariance (intercept and slope)	.00	.00	.00	.00
LR $\chi^2$		49.33**		20.56**

Note. Model 1 was compared with the null model; Model 2 was compared with Model 1.

<sup>a</sup> Because standardizing dependent measures in growth modeling is inappropriate, the dependent measure represents absences per game.

\*  $p < .05$ . \*\*  $p < .01$ .

and/or motivation to perform well. Alternatively, feelings of injustice or relative deprivation could hold greater explanatory power. Justice perceptions have been related to both performance (Ambrose & Schminke, 2009) and health outcomes (Kivimäki et al., 2004) in previous studies. Emotional responses to status hierarchies and status positions may also be important mechanisms to explore in future research, given that emotional pathways relate socioeconomic status to health (Gallo & Matthews, 2003).

Third, future research that accounts for various patterns of interaction and status compositions in teams would be beneficial. In large teams, faultlines may divide the team members into subgroups of similarly ranked status positions, creating an in-group—out-group effect. Thus, our model may not generalize easily to teams that are not comparable in size to those of the NBA. Larger teams may be more likely to have greater status inequality, which makes extending our results to teams of varying sizes an important avenue for future research.

Fourth, status was operationalized using objective indicators. Although status hierarchies are thought to originate from objective or visible characteristics (Berger et al., 1980; Sauder, 2005), subjective evaluations of status may be equally important. For example, individuals' perceived level of socioeconomic status is associated with health after accounting for objective socioeconomic status (e.g., S. Cohen et al., 2008). Such perceptual measures could be created by asking participants how they rank themselves on various objective status indicators, such as salary. Alternatively, future research could measure status by asking each member of a

team to rate or rank one another's status irrespective of any objective status indicators (e.g., Anderson et al., 2001). These approaches could capture the subtleties of status distinctions that emerge in groups, which may escape objective status measures.

Last, future replications of our results with alternate health measures are warranted. The data did not account for incidences where individuals continued to play basketball while ill or injured, or for minor health problems not requiring absences. Measures of sickness absences are among the most appropriate global health indicators, particularly if based on medical certification (e.g., Kivimäki et al., 2003). Väänänen, Buunk, Kivimäki, Pentti, and Vahtera (2005) explained that "in the Whitehall II study, sickness absence was found to be a more powerful predictor of all-cause mortality than were established self-reported health measures or available objective measures of specific physical illnesses and medical conditions" (p. 188). However, undoubtedly ill and injured individuals show up for work (e.g., Aronsson, Gustafsson, & Dallner, 2000). These health problems are not captured in absences, and have been found to be negatively correlated with income, job security, and job satisfaction (Aronsson et al., 2000; Caverley et al., 2007). Low-status players may be more likely to face job insecurity and dissatisfaction. Our results should be interpreted cautiously, accounting for the potential that health problems were underestimated more so for this specific subsample.

### Theoretical Contributions and Practical Implications

We add to the growing presence of status theories that account for behavior in organizations. Extending previous conceptualizations of status at the individual-level by exploring status hierarchies in teams, we show that status inequality explains unique variance beyond individual status in performance and absences due to physical ill health. Our results suggest that any negative effects of status inequality may be mitigated by promoting team cooperation. These results warrant further investigation of status hierarchies in teams. Of importance to managers may be recognizing the status characteristics that are valued within the organization and making strategic composition decisions when designing teams, particularly if interdependence is integral to team success.

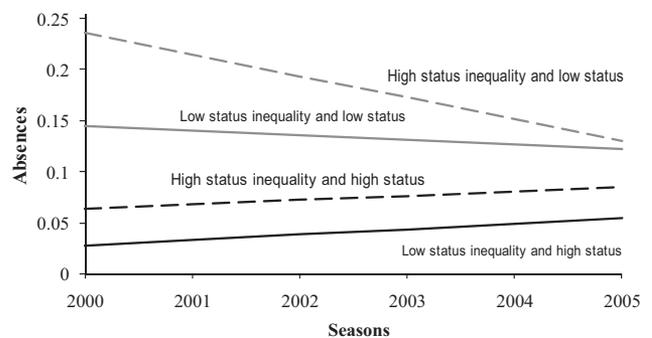


Figure 4. Individual growth trajectory for absences due to physical ill-health. For all time points, low status inequality (high status inequality) refers to status inequality one standard deviation below (or above) the centered mean, and low status (or high status) refers to status at one standard deviation below (or above) the centered mean.

Team research has focused on process and performance-based outcomes. Our inclusion of physical health extends this collection of outcomes. Practically, identifying the potential causes of missed time from work is of significance to organizations, with health care costs a growing concern. Further, the results suggest that, at least in some organizations, absences can impact performance, intensifying their effects. Theoretically, our conceptualization of status at both the position and distribution levels contributes to the growing study of status and health in occupational health psychology. To understand the relation between status and health, this research must explore both an individual's status and the distribution from which it is drawn.

## Conclusion

The goals of this study were to extend individual-level perspectives of status and to demonstrate the importance of status hierarchies to team research. More specifically, our goal was to explore the role of status inequality in teams. To that end, we provided a conceptualization of status inequality and showed the conditions under which status inequality was most relevant to performance and health and across time. Thus, we provided a platform for future research into the study of status structures and status inequality in organizations.

## References

- Ambrose, M. L., & Schminke, M. (2009). The role of overall justice judgments in organizational justice research: A test of mediation. *Journal of Applied Psychology, 94*, 491–500.
- Ancona, D. G., Goodman, P. S., Lawrence, B. S., & Tushman, M. L. (2001). Time: A new research lens. *Academy of Management Review, 26*, 645–663.
- Anderson, C., John, O. P., Keltner, D., & Kring, A. M. (2001). Who attains social status? Effects of personality and physical attractiveness in social groups. *Journal of Personality and Social Psychology, 81*, 116–132.
- Anderson, C., & Reheuser, R. (Eds.). (2004). *Official NBA guide* (2004–2005 ed.). St. Louis, MO: Sporting News.
- Anderson, C., & Reheuser, R. (Eds.). (2005). *Official NBA guide* (2005–2006 ed.). St. Louis, MO: Sporting News.
- Anderson, C., & Reheuser, R. (Eds.). (2006). *Official NBA guide* (2006–2007 ed.). St. Louis, MO: Sporting News.
- Aronsson, G., Gustafsson, K., & Dallner, M. (2000). Sick but yet at work. An empirical study of sickness presenteeism. *Journal of Epidemiology and Community Health, 54*, 502–509.
- Associated Press. (2007, July 15). N.B.A. suspends Artest and Stephen Jackson. *New York Times*, p. SP5.
- Bacharach, S., Bamberger, P., & Mundell, B. (1993). Status inconsistency in organizations: From social hierarchy to stress. *Journal of Organizational Behavior, 14*, 21–36.
- Bailis, D. S., Segall, A., Mahon, M. J., Chipperfield, J. G., & Dunn, E. M. (2001). Perceived control in relation to socioeconomic and behavioral resources for health. *Social Science & Medicine, 52*, 1661–1676.
- Barrick, M. R., Stewart, G. L., & Piotrowski, M. (2002). Personality and job performance: Test of the mediating effects of motivation among sales representatives. *Journal of Applied Psychology, 87*, 43–51.
- Beersma, B., Hollenbeck, J. R., Humphrey, S. E., Moon, H., Conlon, D. E., & Ilgen, D. R. (2003). Cooperation, competition, and team performance: Toward a contingency approach. *Academy of Management Journal, 46*, 572–590.
- Bell, S. T. (2007). Deep-level composition variables as predictors of team performance: A meta-analysis. *Journal of Applied Psychology, 92*, 595–615.
- Belliveau, M. A., O'Reilly, C. A. I., & Wade, J. B. (1996). Social capital at the top: Effects of social similarity and status on CEO compensation. *Academy of Management Journal, 39*, 1568–1593.
- Berdahl, J. L. (2007). Harassment based on sex: Protecting social status in the context of gender hierarchy. *Academy of Management Review, 32*, 641–658.
- Berger, J., Cohen, B. P., & Zelditch, M. (1972). Status characteristics and social interaction. *American Sociological Review, 37*, 241–255.
- Berger, J., & Fisek, M. H. (2006). Diffuse status characteristics and the spread of status value: A formal theory. *American Journal of Sociology, 111*, 1038–1079.
- Berger, J., Fisek, M. H., Norman, R. Z., & Zelditch, M. (1977). *Status characteristics and social interaction: An expectation-states approach*. New York, NY: Elsevier.
- Berger, J., Ridgeway, C. L., Fisek, M. H., & Norman, R. Z. (1998). The legitimation and delegitimation of power and prestige orders. *American Sociological Review, 63*, 379–405.
- Berger, J., Rosenholtz, S. J., & Zelditch, M., Jr. (1980). Status organizing processes. *Annual Review of Sociology, 6*, 479–508.
- Berri, D. J., & Krautmann, A. C. (2006). Shirking on the court: Testing for the incentive effects of guaranteed pay. *Economic Inquiry, 44*, 536–546.
- Berri, D. J., Schmidt, M. B., & Brook, S. L. (2006). *Taking measure of the many myths in modern sport*. Stanford, CA: Stanford University Press.
- Blackburn, R. M., & Prandy, K. (1997). The reproduction of social inequality. *Sociology, 31*, 491–509.
- Bloom, M. (1999). The performance effects of pay dispersion on individuals and organizations. *Academy of Management Journal, 42*, 25–40.
- Bottero, W., & Prandy, K. (2003). Social interaction distance and stratification. *British Journal of Sociology, 54*, 177–197.
- Bunderson, J. S. (2003). Recognizing and utilizing expertise in work groups: A status characteristics perspective. *Administrative Science Quarterly, 48*, 557–591.
- Cacioppo, J. T., Hawkey, L. C., Crawford, E., Ernst, J. M., Burleson, M. H., Kowalewski, R. B., . . . Berntson, G. G. (2002). Loneliness and health: Potential mechanisms. *Psychosomatic Medicine, 64*, 407–417.
- Carter, C., & Hareas, J. (Eds.). (2001). *Official NBA guide* (2001–2002 ed.). St. Louis, MO: Sporting News.
- Carter, C., & Reheuser, R. (Eds.). (2002). *Official NBA guide* (2002–2003 ed.). St. Louis, MO: Sporting News.
- Caverley, N., Cunningham, J. B., & MacGregor, J. N. (2007). Sickness presenteeism, sickness absenteeism, and health following restructuring in a public service organization. *Journal of Management Studies, 44*, 304–319.
- Chattopadhyay, P. (1999). Beyond direct and symmetrical effects: The influence of demographic dissimilarity on organizational citizenship behavior. *Academy of Management Journal, 42*, 273–287.
- Chen, G., Kirkman, B. L., Kanfer, R., Allen, D., & Rosen, B. (2007). A multilevel study of leadership, empowerment, and performance in teams. *Journal of Applied Psychology, 92*, 331–346.
- Christie, A. M., & Barling, J. (2009). Disentangling the indirect links between SES and health: The dynamic roles of work stressors and personal control. *Journal of Applied Psychology, 94*, 1466–1478.
- Cohen, B. P., & Zhou, X. (1991). Status processes in enduring work groups. *American Sociological Review, 56*, 179–188.
- Cohen, S. (2004). Social relationships and health. *American Psychologist, 59*, 676–684.
- Cohen, S., Alper, C. M., Doyle, W. J., Adler, N., Treanor, J. J., & Turner, R. B. (2008). Objective and subjective socioeconomic status and susceptibility to the common cold. *Health Psychology, 27*, 268–274.
- Connell, R. W. (2002). *Gender*. Malden, MA: Blackwell.
- Cowherd, D. M., & Levine, D. I. (1992). Product quality and pay equity

- between lower level employees and top management: An investigation of distributive justice theory. *Administrative Science Quarterly*, 37, 302–320.
- Cropanzano, R., Howes, J. C., Grandey, A. A., & Toth, P. (1997). The relationship of organizational politics and support to work behaviors, attitudes, and stress. *Journal of Organizational Behavior*, 18, 159–180.
- De Dreu, C. K. W. (2007). Cooperative outcome interdependence, task reflexivity, and team effectiveness: A motivated information processing perspective. *Journal of Applied Psychology*, 92, 628–638.
- Devaro, J. (2006). Strategic promotion tournaments and worker performance. *Strategic Management Journal*, 27, 721–740.
- DiTomaso, N., Post, C., & Parks-Yancy, R. (2007). Workforce diversity and inequality: Power, status, and numbers. *Annual Review of Sociology*, 33, 473–501.
- Driskell, J. E., & Mullen, B. (1990). Status, expectations, and behavior: A meta-analytic review and test of the theory. *Personality and Social Psychology Bulletin*, 16, 541–553.
- Duffy, M. K., Ganster, D. C., & Pagon, M. (2002). Social undermining in the workplace. *Academy of Management Journal*, 45, 331–351.
- Gallo, L. C., & Matthews, K. A. (2003). Understanding the association between socioeconomic status and physical health: Do negative emotions play a role. *Psychological Bulletin*, 129, 10–51.
- Groothuis, P. A., & Hill, J. R. (2004). Exit discrimination in the NBA: A duration analysis of career length. *Economic Inquiry*, 42, 341–349.
- Harris, K. J., & Kacmar, K. M. (2005). Easing the strain: The buffering role of supervisors in the perceptions of politics–strain relationship. *Journal of Occupation and Organizational Psychology*, 78, 337–354.
- Harrison, D. A., & Klein, K. (2007). What's the difference? Diversity constructs as separation, variety, or disparity in organizations. *Academy of Management Review*, 32, 1199–1228.
- Hayward, M. L., & Hambrick, D. C. (1997). Explaining the premium paid for large acquisitions: Evidence of CEO hubris. *Administrative Science Quarterly*, 42, 103–128.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513–524.
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review*, 50, 337–421.
- Hoffer, R. (2006, July 31). It's great to be average. *Sports Illustrated*, 105(4), 56.
- Holahan, C. J., Moos, R. H., Holahan, C. K., & Cronkite, R. C. (1999). Resource loss, resource gain, and depressive symptoms: A 10-year model. *Journal of Personality and Social Psychology*, 77, 620–629.
- Huberman, B. A., Loch, C. H., & Öncüler, A. (2004). Status as a valued resource. *Social Psychology Quarterly*, 67, 103–114.
- Jackson, S., Joshi, A., & Erhardt, N. L. (2003). Recent research on team and organizational diversity: SWOT analysis and implications. *Journal of Management*, 29, 801–830.
- Johns, G. (2008). Absenteeism and presenteeism: Not at work or not working well. In C. L. Cooper & J. Barling (Eds.), *The Sage handbook of organizational behavior* (Vol. 1, pp. 160–177). London, England: Sage.
- Karasek, R. A. (1979). *Job demands, decision latitude, and mental strain: Implications for job design*. Ithaca, NY: Cornell University Press.
- Karasek, R. A., & Theorell, T. (1990). *Healthy work: Stress, health, and the reconstruction of working life*. New York, NY: Basic Books.
- Keidel, R. W. (1987). Team sports models as a generic organizational framework. *Human Relations*, 40, 591–612.
- Kendall, T. D. (2008). Celebrity misbehavior in the NBA. *Journal of Sports Economics*, 9, 231–249.
- Kirchler, E., & Davis, J. H. (1986). The influence of member status differences and task type on group consensus and member position change. *Journal of Personality and Social Psychology*, 51, 83–91.
- Kivimäki, M., Ferrie, J. E., Head, J., Shipley, M. J., Vahtera, J., & Marmot, M. G. (2004). Organisational justice and change in justice as predictors of employee health: The Whitehall II study. *Journal of Epidemiology & Community Health*, 58, 931–937.
- Kivimäki, M., Head, J., Ferrie, J. E., Shipley, M. J., Vahtera, J., & Marmot, M. G. (2003). Sickness absences as a global measure of health: Evidence from mortality in the Whitehall II prospective cohort study. *British Medical Journal*, 327, 364–372.
- Laumann, E. O., & Guttman, L. (1966). The relative associational continuity of occupations in an urban setting. *American Sociological Review*, 31, 169–178.
- Lazear, E. P. (1989). Pay equality and industrial politics. *Journal of Political Economy*, 97, 561–581.
- Lazear, E. P., & Rosen, S. (1981). Rank-order tournaments as optimum labor contracts. *Journal of Political Economy*, 89, 841–864.
- Loch, C., Huberman, B. A., & Stout, S. (2000). Status competition and performance in work groups. *Journal of Economic Behavior & Organization*, 43, 35–55.
- Loch, C., Yaziji, M., & Langen, C. (2001). The fight for alpha position: Channelling status competition in organizations. *European Management Journal*, 19, 16–25.
- Locke, K. (2003). Status and solidarity in social comparison: Agentive and communal values and vertical and horizontal directions. *Journal of Personality and Social Psychology*, 84, 619–631.
- Locke, K. (2005). Connecting the horizontal dimension of social comparison with self-worth and self-confidence. *Personality and Social Psychology Bulletin*, 31, 795–803.
- Marmot, M. G. (2004). *The status syndrome: How social standing affects our health and longevity*. New York, NY: Times Books.
- Mehra, A., Kilduff, M., & Brass, D. J. (2001). The social networks of high and low self-monitors: Implications for workplace performance. *Administrative Science Quarterly*, 46, 121–146.
- Morris, L., & Scott, J. (1996). The attenuation of class analysis: Some comments on G. Marshall, S. Roberts and C. Burgoyne, "Social Class and the Underclass in Britain in the USA." *British Journal of Sociology*, 47, 45–55.
- Pearce, J. L. (2001). Less epistemology; more government and social status. *Human Relations*, 54, 85–89.
- Penninx, B. W. J. H., van Tilburg, T., Kriegsman, D. M. W., Deeg, D. J. H., Boeke, A. J. P., & van Eijk, J. T. M. (1997). Effects of social support and personal coping resources on mortality in older age: The Longitudinal Aging Study Amsterdam. *American Journal of Epidemiology*, 146, 510–519.
- Perretti, F., & Negro, G. (2006). Filling empty seats: How status and organizational hierarchies affect exploration versus exploitation in team design. *Academy of Management Journal*, 49, 759–777.
- Pfeffer, J. (1998). *The human equation: Building profits by putting people first*. Boston, MA: Harvard Business School Press.
- Pierce, C. P., Thomsen, L., & McCallum, J. (2005, February 21). Why fans are tuning out the NBA. *Sports Illustrated*, 102(8), 64–73.
- Ployhart, R. E., Weekley, J. A., & Baughman, K. (2006). The structure and function of human capital emergence: A multilevel examination of the attraction–selection–attrition model. *Academy of Management Journal*, 49, 661–677.
- Prandy, K. (1999). Class, stratification and inequalities in health: A comparison of the registrar-general's social class and the Cambridge Scale. *Sociology of Health & Illness*, 21, 466–484.
- Ravlin, E. C., & Thomas, D. C. (2005). Status and stratification processes in organizational life. *Journal of Management*, 31, 966–987.
- Redelmeier, D. A., & Singh, S. M. (2001). Survival in academy award-winning actors and actresses. *Annals of Internal Medicine*, 134, 955–962.
- Reheuser, R., & Smith, R. (Eds.). (2003). *Official NBA guide* (2003–2004 ed.). St. Louis, MO: Sporting News.
- Ridgeway, C. L., & Correll, S. J. (2004). Unpacking the gender system: A

- theoretical perspective on gender beliefs and social relations. *Gender & Society*, 18, 510–531.
- Ridgeway, C. L., & Walker, H. A. (1995). Status structures. In K. S. Cook, G. A. Fine, & J. S. House (Eds.), *Sociological perspectives on social psychology* (pp. 281–310). Boston, MA: Allyn & Bacon.
- Rollag, K. (2004). The impact of relative tenure on newcomer socialization dynamics. *Journal of Organizational Behavior*, 25, 853–872.
- Rook, K. S. (1984). The negative side of social interaction: Impact on psychological well-being. *Journal of Personality and Social Psychology*, 46, 1097–1108.
- Rosen, S. (1986). Prizes and incentives in elimination tournaments. *American Economic Review*, 76, 701–716.
- Rosenberg, S. S. (2007, April 8). NBA can't match college for fans. *Greeley Tribune*. Retrieved from <http://www.greeleytribune.com>
- Sabino, D. (2005, October 24). MEMPHIS Grizzlies. *Sports Illustrated*, 103(1), 129.
- Sauder, M. (2005). Symbols and contexts: An interactionist approach to the study of social study. *Social Psychology Quarterly*, 46, 279–298.
- Seeman, T. E. (1996). Social ties and health: The benefits of social integration. *Annals of Epidemiology*, 6, 442–451.
- Seeman, T. E. (2000). Health promoting effects of friends and family on health outcomes in older adults. *American Journal of Health Promotion*, 14, 362–370.
- Shaw, J. D., Gupta, N., & Delery, J. E. (2002). Pay dispersion and workforce performance: Moderating effects of incentives and interdependence. *Strategic Management Journal*, 23, 491–512.
- Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York, NY: Oxford University Press.
- Stanton, A. L., Revenson, T. A., & Tennen, H. (2007). Health psychology: Psychological adjustment to chronic disease. *Annual Review of Psychology*, 58, 565–592.
- Sundstrom, E., McIntyre, M., Halfhill, T., & Richards, H. (2000). Work groups: From the Hawthorne studies to work teams of the 1990s and beyond. *Group Dynamics: Theory, Research, and Practice*, 4, 44–67.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Needham Heights, MA: Allyn & Bacon.
- Trevor, C., Gerhart, B., & Reilly, G. (2006, August). *Reconciling competing perspectives on pay dispersion and organizational performance: The criticality of pay strategies and employee inputs*. Paper presented at the annual meeting of the Academy of Management, Atlanta, Georgia.
- Trevor, C. O., & Wazeter, D. L. (2006). A contingent view of reactions to objective pay conditions: Interdependence among pay structure characteristics and pay relative to internal and external referents. *Journal of Applied Psychology*, 91, 1260–1275.
- Tsui, A. S., & O'Reilly, C. A. I. (1989). Beyond simple demographic effects: The importance of relational demography in superior-subordinate dyads. *Academy of Management Journal*, 32, 402–423.
- Uchino, B. N. (2004). *Social support and physical health: Understanding the health consequences of relationships*. New Haven, CT: Yale University Press.
- Väänänen, A., Buunk, B. P., Kivimäki, M., Pentti, J., & Vahtera, J. (2005). When it is better to give than to receive: Long-term health effects of perceived reciprocity in support exchange. *Journal of Personality and Social Psychology*, 89, 176–193.
- Washington, M., & Zajac, E. J. (2005). Status evolution and competition: Theory and evidence. *Academy of Management Journal*, 48, 281–296.
- Weisband, S. P., Schneider, S. K., & Connolly, T. (1995). Computer-mediated communication and social information: Status salience and status differences. *Academy of Management Journal*, 38, 1124–1151.
- Wilkinson, R. G. (2005). *The impact of inequality: How to make sick societies healthier*. New York, NY: New Press.
- Williams, J. M. (2001). Psychology of injury risk and prevention. In R. N. Singer, H. A. Hausenblas, & C. Janelle (Eds.), *Handbook of research in sport psychology* (2nd ed., pp. 766–786). New York, NY: Macmillan.
- Witnauer, W. D., Rogers, R. G., & Saint Onge, J. M. (2007). Major league baseball career length in the 20th century. *Population Research and Policy Review*, 26, 371–386.
- Wolfe, R. A., Weick, K. E., Usher, J. M., Terborg, J. R., Poppo, L., Murrell, A. J., . . . Jourdan, J. S. (2005). Sport and organizational studies: Exploring synergy. *Journal of Management Inquiry*, 14, 182–210.
- Wolff, A. (2001, May 21). The old guard. *Sports Illustrated*, 94(21), 50–51.
- Wrzesniewski, A., Dutton, J. E., & Debebe, G. (2003). Interpersonal sensemaking and the meaning of work. In R. M. Kramer & B. Staw (Eds.), *Research in organizational behavior* (pp. 93–135). San Francisco, CA: Interscience.

Received January 5, 2009

Revision received February 1, 2010

Accepted February 9, 2010 ■