Hot shots and cool reception? An expanded view of social consequences for high performers

By: Elizabeth M. Campbell, Hui Lao, Aichia Chuang, Jing Zhou, and Yuntao and Dong

Abstract:

While high performers contribute substantially to their workgroups and organizations, research has indicated that they incur social costs from peers. Drawing from theories of social comparison and conservation of resources, we advance a rational perspective to explain why high performers draw both intentional positive and negative reactions from peers and consider how cooperative work contexts moderate these effects. A multisource field study of 936 relationships among 350 stylists within 105 salons offered support for our model and an experiment with 204 management students constructively replicated our findings and ruled out alternative explanations. Results indicated that peers offered more support and also perpetrated more undermining to high performers. Paradoxical cognitive processes partly explain these behaviors, and cooperative contexts proved socially disadvantageous for high performers. Findings offer a more comprehensive view of the social consequences of high performance and highlight how peer behaviors toward high performers may be calculated and strategic rather than simply reactionary.

Keywords: high performers | social support | social undermining | resource threat | strategic mistreatment

Article:

> "*Tall trees catch much wind*."—Dutch saying
> "*The nail that sticks up gets hammered down*."—Japanese proverb
> "*It's lonely at the top*."—U.S. adage

High performers are individuals whose job performance is relatively higher than their peers (Kim & Glomb, 2014; Schmitt, Cortina, Ingerick, & Wiechmann, 2003). Business leaders spend disproportionate resources trying to attract, hire, and retain these individuals (Deloitte Human Capital, 2008). Research on identifying, engaging, and retaining high performers also dominates discussion among management scholars (Sackett & Lievens, 2008), and prompts talent wars among organizations (Michaels, Handfield-Jones, & Axelrod, 2001; Sutton, 2007). While high performers bring substantial value to their organizations and workgroups, the above quotes about high performers imply that they also attract substantial attention—and that their social experiences may not be positive. Unfortunately, we are left with few insights on how

performance level impacts one's social experience at work since efforts to identify predictors of individual high performance have eclipsed understanding its consequences (Burke, 1982).

Increasingly, work occurs in groups, requires dynamic collaboration, and involves frequent social interaction (Grant & Parker, 2009; Griffin, Neal, & Parker, 2007). As work grows more relational, understanding the social consequences of high performance seems valuable for at least two reasons. First, in groups, peers' knowledge of individual performance transmits quickly (Molleman, Nauta, & Buunk, 2007), and—once known—differences in performance invite social comparisons, shape how peers judge one another (i.e., as beneficial and/or as threatening), and affect how peers treat one another (Allport, 1954; LePine & Van Dyne, 2001). Second, peers' behaviors toward high performers matter more in relational work contexts. High performers are less likely to stay with their organizations or sustain exceptional success if their social experiences are difficult or distracting (e.g., Jensen, Patel, & Raver, 2014) and even stars can flounder without supportive peer relationships (Groysberg, 2010).[1]

Comprehensive review of related research indicates that peers may behave antisocially toward individuals with relatively high performance. Foundational management studies catalogued peer behaviors designed to pressure high producers to ease up (i.e., "rate-busters;" Dalton, 1948) and demonstrated that outperformers can draw aggression, exclusion, and ridicule (Mayo, 1949; Roethlisberger & Dickson, 1939). Social comparison literature suggests that employees tend to compare themselves with those who are better than them (Festinger, 1954), which can spark negative attitudes and behaviors toward high performers (Lam, Van der Vegt, Walter, & Huang, 2011). Recent correlational studies have expanded knowledge of this phenomenon, showing that both smarter workers (Kim & Glomb, 2010) and high performers reported more victimization (Jensen et al., 2014; Kim & Glomb, 2014). These studies tell a disquieting story of peers' inclination toward mistreating high performers.

Still, there are compelling reasons to expect a clear social upside for high performers. Perhaps most importantly, upward comparisons are not always negative, threating, or depleting, but rather can be positive, self-enhancing, and inspiring (Collins, 1996). High performers can also offer benefits and bring increased resources to peers. We contend that knowledge of social consequences is incomplete due to limited understanding of the range of peer behaviors toward high performers, the mechanisms driving these behaviors, and the nature of the workgroup context. To improve understanding, we offer and test an expanded model of social consequences of high performance. We explain why peers are likely to view high performers as both beneficial and threatening, and, in turn, target them for both support and undermining. We ground our arguments to theories of social comparison (Festinger, 1954) and conservation of resources (Hobfoll, 1989, 2001) to explain how peers' upward comparisons to high performer can be perceived as simultaneously beneficial and threatening to their resources at work. We offer a multimethod test of our model using a field study and a controlled experiment to capitalize on their respective and complementary strengths of external and internal validity.

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[1] While similar, the concept of a high performer is distinct from that of a star employee. Beyond relative high performance, star employee performance must be disproportionately high and prolonged; stardom also implies having substantial visibility and social capital (for review, Call, Nyberg, & Thatcher, 2015; Groysberg, 2010).

We contribute to existing literatures in several ways. Chiefly, we seek to offer a *more comprehensive* and *balanced view* of how peers *rationally evaluate* and *intentionally behave* toward high performers at work. Inquiries to date have relied upon the victim precipitation model to explain how high performers serve as provocative victims who spark emotional and aggressive reactance from peers (e.g., Jensen et al., 2014; Kim & Glomb, 2014). We join and extend high performer victimization research by expanding understanding of the positive and negative social consequences of high performance. In doing so, we expose a paradox of social behaviors toward high performers, broaden knowledge of the spectrum of social consequences they face, and more fully explain their social experience. Accounting for peer support and undermining toward high performers seems crucial because studies have shown that experiencing both support and undermining from the same source can prove more harmful to one's work and health than undermining alone (Duffy, Ganster, & Pagon, 2002; Hobman, Restubog, Bordia, & Tang, 2009; Nahum-Shani, Henderson, Lim, & Vinokur, 2014; Uchino, Holt-Lunstad, Smith, & Bloor, 2004). Second, we advance the literature by specifying *cognitive mechanisms* that motivate peer support and undermining. Our research reveals peers' threat perceptions explain unique variance in their mistreatment of high performers, which complements work that identified envy as an emotion driving high performer victimization (Kim & Glomb, 2014). Third, we build knowledge of boundary conditions. Given its increased popularity in organizations, we examine how cooperative climate acts as a *contextual moderator* to these effects. We also initiate investigation of *who* is more likely to support or undermine high performers by exploring how peers' own performance level impacts their behaviors. Fourth, we expand the explanatory power of social comparison and conservation of resources theories into the study of high performers. Fifth, high performer research to date has been correlational, so we test our model in a controlled setting to *causally link* high performance with peer perceptions, support, and undermining.
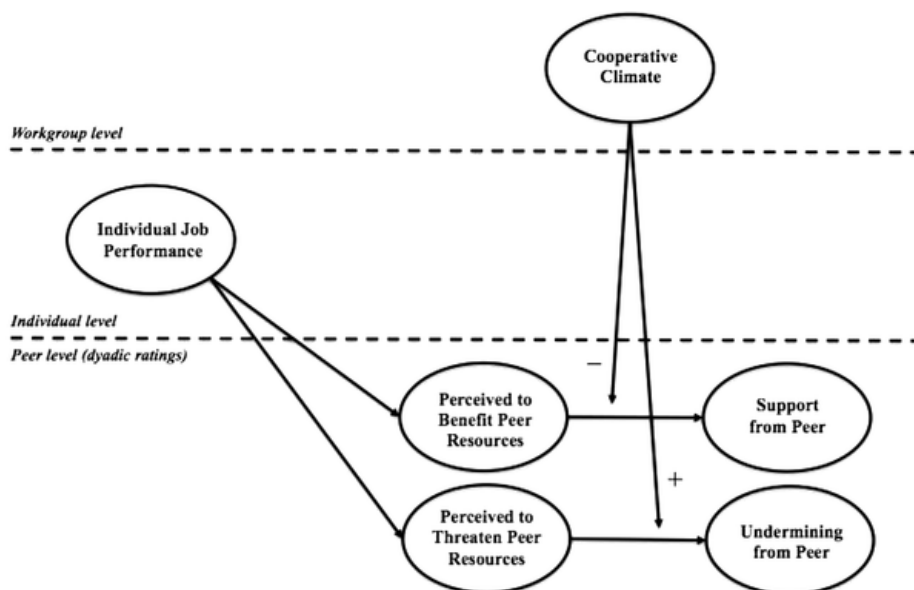

Figure 1. Hypothesized model of social consequences for high performers.

Theory and Hypotheses

Parallel Calculations: The Benefit and Threat of Upward Comparison to High Performers

Social comparisons are ubiquitous, involving the acquisition of social information about others, comparative evaluation of that information, and then calculated reaction (Wood, 1996). They serve a fundamental need to evaluate one's relative standing by seeking context-relevant information and comparing "one's own features to those of others" (Buunk & Gibbons, 2007; Buunk & Mussweiler, 2001; p. 467). For several reasons, we expect peers' upward comparisons to high performers are commonplace and necessary. First, in his formative work, Festinger (1954) asserted that individuals possess an inherent "drive upward." Since then, robust evidence supports this original view: Individuals compare their situation with those who are better than them (i.e., *upward comparison*; Buunk & Mussweiler, 2001) and often select those who set high standards as comparison targets (Feldman & Ruble, 1981; Goethals, 1986). Second, while studies have shown individuals tend to compare themselves with similar others in the case of characteristics (for review, Suls & Wheeler, 2013), they are more likely to upwardly compare in the case of ability or performance; this may be due to the natural tendency to overestimate oneself on socially valued attributes like performance (Festinger, 1954; Greenwald, 1980). Third, whether peers choose upward, downward, or parallel comparison largely depends upon what is salient and useful to the situation (Hogg, 2000; Suls & Wheeler, 2013). Individuals gravitate toward cues most relevant to the context when making comparisons (Maner, Miller, Moss, Leo, & Plant, 2012). At work, job performance stands out as a salient cue when making evaluations and comparisons with others (Kim & Glomb, 2014). Individuals go to work for two primary goals: to accomplish tasks and to get rewarded. High performers can affect both of these goals. Therefore, upward comparisons can serve a pragmatic and informative function for peers as they scan their environment to acquire and maintain access to valued resources at work.

Scholars offer theory and compelling evidence that two cognitive paths stem from upward comparisons with high performers—one that is beneficial and one that is threatening to the self. Studies chronicle many depleting aspects of upward social comparisons but also highlight its salutary effects (Mussweiler, 2003a, 2003b; Mussweiler & Strack, 2000; Wood, 1989). Compelling arguments and evidence suggest individuals regularly seek upward comparisons because they can be informative and motivating, as well as improve one's view of self (Collins, 1996). Research indeed suggests comparison can prompt peers to make favorable *assimilations* with their colleagues (i.e., highlight shared characteristics, consider benefits, and improve their view of self) rather than merely to draw unfavorable *contrasts* (i.e., highlight differences in characteristics, sensitize threats, and deplete their view of self; Buunk, Collins, Taylor, VanYperen, & Dakof, 1990; Collins, 2000). Studies of upward comparison have also yielded inconsistent results on whether they benefit or threaten (Brown, Ferris, Heller, & Keeping, 2007). We expect that this can be resolved in part by relaxing the assumption that upward comparisons trigger either a process of assimilation or contrast for peers. Rather, self-comparisons with those we spend substantial time with are complex and likely to prompt both assimilation and contrast (Buunk & Gibbons, 2007; Mussweiler, 2003a). Consequently, we expect that peers make comparisons with high performers, perceiving them as both beneficial

and threatening. Such comparisons can create tension by being both inspirational and enhancing while also painful and frustrating (Brickman & Bulman, 1977; Mussweiler & Strack, 2000).

These two social comparison processes can be further informed by conservation of resources theory (COR), which explains that individuals actively assess their environment to identify advantages and challenges to their personal, social, and material resources (Hobfoll, 1989, 2001). While studies have often discussed social comparison in the abstract or limited its application to personal features of the self, like self-esteem, COR theory allows us to tangibly specify and broaden consideration of resources to social and material resources (e.g., respect and tools) in addition to personal resources (e.g., time or energy; Gorgievski, Halbesleben, & Bakker, 2011; ten Brummelhuis & Bakker, 2012). Integration of these theories therefore builds more comprehensive understanding of how peers evaluate of high performers' impact on resources.

The COR framework roots to rational principles of resource maximization and assumes peers are strategically motivated to accrue and protect their resources, which include anything viewed by individuals as valuable to their goal achievement (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014; Hobfoll, 2002). It has been predominately applied to understand psychological phenomena especially in the stress literature, but originally functioned as a theory of motivation to explain how resource perceptions drive individual behavior (Halbesleben et al., 2014) and can be useful in explaining employee motivation at work (Gorgievski & Hobfoll, 2008). Like social comparison theory, conservation of resources theory specifies two processes that drive behavior: *Accumulation* and *conservation* of resources (Halbesleben et al., 2014). Accumulation of resources describes the process of opportunistic attention and efforts to gain future resources while conservation of resources describes the parallel process of vigilant attention and efforts to protect current resources.

We integrate these two theories to explain how high performers instigate parallel yet paradoxical social comparison processes for peers in order to serve their utilitarian goals of obtaining and protecting resources. On one hand, peers are likely to assimilate with high performers and see them as beneficial to their accumulation of resources. On the other hand, peers are likely to draw contrast to high performers and see them threatening to their conservation of resources. Simply stated, we expect peers to recognize that high performers have the potential to enhance their resources and increase the size of the workgroup resource pool but are also likely deplete their resources by earning disproportionately large portions of the resource pool. The independence of these two processes is important as social relationships rarely lie on a continuum from negative to positive but rather comprise of simultaneously helpful and harmful experiences and interactions (Brickman & Bulman, 1977; Duffy et al., 2002; Uchino et al., 2004).

In turn, peer perceptions shape their behaviors toward high performers. Consistent with both theories, strong comparisons beget strong behavioral responses (Buunk & Mussweiler, 2001; Hobfoll, 2001). We expect peers to behave in ways that maximize resources: (a) offering support to nurture relationships with high performers as they may benefit peers' resources and (b) undermining to reduce the influence of high performers as they may threaten peers' resources. While these behaviors are unlikely to occur contemporaneously, they both can occur at different points in time within same relationship (e.g., Duffy et al., 2002; Hobman et al., 2009).

Beneficial Upward Comparisons With High Performers

Scholars question why individuals would gravitate toward upward comparisons if they were only threatening, and instead contend that they can often be self-enhancing (e.g., Collins, 1996; Wheeler & Miyake, 1992). Assimilation has been comparatively neglected in upward comparison research but evidence points toward the possibility that peers' upward comparison can foster feelings of connection when considered the context of real relationships (Locke & Nekich, 2000). For instance, consider a colleague who consistently exceeds expectations, draws new clients, or has been exceptionally trained. Working with such an individual may prove beneficial to one's own self-image and ability to excel at work.

Upward comparison with high performers can also motivate and inspire peers (Taylor & Lobel, 1989). Festinger (1954) himself noted that upward comparison may be especially beneficial to peers when the magnitude of the difference is substantial, offering peers something aspirational to model. To protect their self-interest, peers can associate and identify closely with high performers, which enables favorable reflection toward their success and assimilation (Buunk & Gibbons, 2007; Collins, 1996). Peers may bask in the glory of superior others in order to maintain positive self-evaluation, especially in long-term relationships and stable workgroups (Cialdini et al., 1976; Tesser, 1988; Tesser, Millar, & Moore, 1988). Research has offered indirect evidence that peers assimilate with the success of others in their workgroup (e.g., Brewer & Weber, 1994), especially if they expect to derive benefits (Collins, 1996). Such assimilations can boost peers' sense of status and self-image (Brown, Novick, Lord, & Richards, 1992). Studies have also shown that—when the group context is salient—upward comparison with high performers can positively impact personal resources of peers (Gardner, Gabriel, & Hochschild, 2002). Similarly, in a study of physicians, upward comparisons with high performing colleagues evoked better views of self (Buunk, Zurriaga, Peiro, Nauta, & Gosalvez, 2005).

Upward comparisons with high performers not only impact peers' view of their personal resources (e.g., self-concept) but also their social and material resources. Conservation of resources theory explains that peers actively scan their environment to compare and identify sources of potential resource acquisition (i.e., accumulation mechanism; Hobfoll, 1989, 2001). Possessing valued capabilities increases high performers' potential helpfulness, and therefore their instrumental value to their peers (Van der Vegt, Bunderson, & Oosterhof, 2006). High performers can improve peers' access to resources such as expertise, opportunities for learning, and advice (e.g., Kram, 1988; Raat, Kuks, van Hell, & Cohen-Schotanus, 2013; Sparrowe, Liden, Wayne, & Kraimer, 2001). They also bring benefits to the workgroup such as elevated reputation, more customers or clients, goal accomplishment, and greater leader satisfaction with the workgroup (e.g., Lam et al., 2011; Hogg & Abrams, 1988). Based upon these arguments and past studies, we submit:

> *Hypothesis 1:* As an individual's relative job performance increases, peers are more likely to perceive the individual as beneficial to their own resources.

As peers consider high performers beneficial to their own resources, we expect that they will be inclined to offer them more social support. Social support refers to emotional and instrumental

assistance such as advice, care, help, and opportunities (Hobfoll, 2009; Hobfoll, Freedy, Lane, & Geller, 1990). It builds positive interpersonal relationships and is argued to be universally valuable (Hobfoll & London, 1986). While mostly studied in the context of socioemotional bonds or as a buffer to stress, social support serves not just an instrument of goodwill but also a tactic to foster connection (Duffy et al., 2002), to increase sense of similarity (Wood, 1996) and to obtain and maintain future access to resources (Hobfoll, 2009).

Peers' judgment of high performers as beneficial to resources may motivate them to present themselves as similarly valuable in order to reduce disparity of the comparison, build a sense of similarity, and improve self-evaluation (Buunk & Gibbons, 2007; Buunk et al., 1990). Research offers indirect evidence that peers are inclined to offer support to others who they consider beneficial to their own reputation (Cialdini et al., 1976). Similarly, peers may consider it beneficial for their own image to work to form supportive relationships with high performers and to bolster their association (Long, Baer, Colquitt, Outlaw, & Dhensa-Kahlon, 2015).

Consistent with this view, conservation of resources theory contends that individuals use social support strategically for the purpose of accumulating additional resources (Hobfoll, 2002). Evidence supports the view that employees prefer to socially invest in relationships with individuals who can bring them the most value (Gibbons, 2004). Studies have also shown peers enact support behaviors in particular to build relationships and invest in connections with individuals who can benefit their resources (Halbesleben et al., 2014; Halbesleben & Wheeler, 2015). For these reasons, we propose:

> *Hypothesis 2:* As an individual's relative job performance increases, peers are more likely to offer social support to the individual, mediated by their perceptions that the individual benefits their own resource access.

Threatening Upward Comparisons With High Performers

While upward comparison can be beneficial and useful at work, they can simultaneously threaten (Brickman & Bulman, 1977; Collins, 1996). When peers make comparisons with high performers, they are more likely to view own performance as sharply lacking (Buunk & Gibbons, 2007). High performers draw additional attention and may highlight relative deprivation or disparity (Festinger, 1954; Lockwood, 2002). Substantial evidence has demonstrated that upward comparison can spark threat perceptions (e.g., Aspinwall & Taylor, 1993). In addition to concern for their comparative social and material resources, peer self-evaluation of their personal resources, such as self-esteem or confidence, may suffer (Collins, 1996). For example, in their study of dyads, research by Lam et al. (2011) suggested that upward comparisons with high performers damaged peers' self-view when they could not foresee similar performance.

Conservation of resources can extend understanding of how upward comparison with high performers can trigger peers' concern for resources. It explains that, in addition to accumulating resources from others, individuals are motivated to actively scan their environment to protect themselves against those who could threaten resources (i.e., conservation mechanism; Hobfoll, 1989, 2001). As job performance often serves as a chief determinant of resource allocation, high

performers have the potential to earn substantial resources and prompt peers to see them as threatening. High performers may be awarded preferred tasks, draw attention of others, and tax the overall resource pool for their workgroups (e.g., Bauer & Green, 1996). High performers commonly have first choice of new project assignments, are selected for training opportunities, get assigned to serve preferred customers, and attract favor from leaders (e.g., Wayne & Ferris, 1990). Managers may schedule new customers with high performers to capitalize on first impressions and build their customer base, or they may publicly praise high performers as paragons of customer service. Evidence has shown high performers spark worry from peers that their performance will be judged as comparatively lacking and that productivity expectations will increase without commensurate compensation (Dalton, 1948; Roethlisberger & Dickson, 1939). With their potential to earn favor and extra resources and, as a result, drain finite resources (e.g., i-deals; Rousseau, Ho, & Greenberg, 2006), we expect social comparison with high performers triggers peer concern of resource threat. Taken together, we propose:

> *Hypothesis 3:* As an individual's relative job performance increases, peers are more likely to perceive the individual as threatening to their own resources.

When peers' social comparisons draw contrast and they evaluate high performers as more threatening, their motivation to protect resources increases (Halbesleben et al., 2014). Antisocial behaviors are common retaliatory responses to threat (O'Leary-Kelly, Duffy, & Griffin, 2000; Skarlicki & Folger, 1997). A form of antisocial behavior, social undermining, seems particularly relevant as it describes behavior intended to impede others' ability to establish and sustain effective relationships, to achieve work success, and to maintain a strong reputation (Duffy et al., 2002; Duffy, Ganster, Shaw, Johnson, & Pagon, 2006). It is designed to weaken the influence of others in a calculated, discreet way and can have debilitating effects on targets' wellbeing, work attitudes, and behaviors (Duffy et al., 2002; Duffy, Scott, Shaw, Tepper, & Aquino, 2012). We expect peers undermine high performers to diffuse frustrations that stem from unfavorable comparison, to protect their resources, and to erode high performers' influence.

Management research offered early evidence that peers will lash out against high performers who they viewed as threatening (Dalton, 1948; Roethlisberger & Dickson, 1939). More recently, studies have fruitfully applied social comparison theory to explain high performer victimization. Jensen, Patel, and Raver (2014) showed that peers covertly victimize high performers. Kim and Glomb's (2014) research indicated that this can be partly explained by peers' feelings of envy— common reaction to unfavorable social comparisons (Brickman & Bulman, 1977; Gilbert, Giesler, & Morris, 1995). We expect envy may operate as a key driver of peer reactions in cases when comparisons with high performers affect one's *personal* self-evaluation, because envy is rooted to feelings of inferiority (Duffy, Shaw, & Schaubroeck, 2008). While related, feelings of envy and perceptions of threat are distinct psychological experiences (Tai, Narayanan, & McAllister, 2012). When comparisons affect threat perceptions related to resource impact, they reflect a cognitive calculus and imply no self-judgment of inferiority but rather focus on individual utility (Hobfoll, 2001). Still, both feelings of envy and perceptions of threat create stress for peers, which they will be motivated to relieve (Hobfoll, 1989). For example, to cope with unfavorable comparisons, peers may be prone to depersonalize high performers by labeling them as strange outliers (i.e., "geniuses;" Alicke, LoSchiavo, Zerbst, & Zhang, 1997), vilifying them without basis (Feather, 2012), or avoiding them (Tesser, 1988).

Peers will defend against perceived threats even if it means engaging in dysfunctional behaviors or behaving out of character (Hobfoll, 1989). Consistent with this, research has shown that when employees experience identity threats, they are more likely to lash out against the source of threat (Aquino & Douglas, 2003; Tai et al., 2012). By undermining high performers, potential gains for peers include blowing off steam (Tripp, Bies, & Aquino, 2002), deterring future threats (e.g., Skarlicki & Folger, 1997), and reducing high performers' influence (Duffy et al., 2002). For these reasons, we propose:

> *Hypothesis 4:* As an individual's relative job performance increases, peers are more likely to undermine the individual, mediated by their perceptions that the individual threatens their own resource access.

Making Comparisons Salient: Cooperative Climate as a Moderator

Another goal of our study is to consider how workgroup context moderates peer reactions to their comparisons and affects their likelihood to express their perceptions as social support and undermining behaviors. We focus on climate because it reflects perceptions of the immediate context and can be intentionally shaped through practices, routines, and rewards (Ostroff, Kinicki, & Muhammad, 2013; Schneider, Ehrhart, & Macey, 2011). Workgroup climate is also likely to facilitate or constrain the extent to which peers act upon their individual perceptions and motivations (Chen & Kanfer, 2006). We considered cooperative climate particularly germane to our investigation because this type of climate guides members' social interactions and affects extent to which members view their own personal goals, interests, and resources as intertwined with those of others (Deutsch, 1949; Markus & Kitayama, 1991). Cooperative climates describe workgroup contexts that emphasize positive interdependence of goals among group members and achievement through group solidarity (Deutsch, 1949, 1973; Tjosvold, 1988). They value solidarity, stress harmony, and operate as a proximal transmitters of structural factors like rewards systems (Chatman & Flynn, 2001; Wagner, 1995). Such contexts can improve learning information sharing, coordination, and productivity in groups (Chatman, Polzer, Barsade, & Neale, 1998; Hill, Bartol, Tesluk, & Langa, 2009; Johnson, Maruyama, Johnson, Nelson, & Skon, 1981; Tjosvold, Yu, & Hui, 2004). With such benefits to workgroup processes and performance, it is easy to understand why organizations value and increasingly encourage cooperation. However, organizations also simultaneously value high performers—individuals who positively deviate from their groups. We contend that these practices may be at odds, creating a problematic social situation for high performers by reducing their relative social advantage (i.e., support) while increasing their relative social disadvantage (i.e., undermining).

Core to our arguments is the relevance of cooperative climate to peers' upward social comparisons. We expect that cooperative climates shift peers' own frame of reference from personal interest in their individualized selves to mutual interests in their social selves. Brewer and Gardner (1996) conceptually distinguished three representations of the self, which include individual (i.e., focused on uniqueness and motivated by self-interest and independence), relational (i.e., focused on relationships and motivated by responsiveness to others), and collective (i.e., focused on the group and motivated by obligation to the group welfare and conformity). Fundamentally, activation of social views of self implies a broadening of one's

identity and motivations beyond self-interest. We expect that cooperative climates activate peers' collective view of self and facilitate motivation to protect shared values and serve as good representatives for the group (Brewer, 1991; Brewer & Chen, 2007). In priming peers' broader self-view, such contexts amplify motivations to act in support of solidarity and to reinforce commonality over uniqueness (Brewer & Gardner, 1996; Hogg & Abrams, 1988). Cooperative climates may also sensitize peers to intragroup differences and norm violations and make them more prone to discount dyadic relationships with colleagues, which get eclipsed by a focus on common membership (Brewer & Chen, 2007; Brewer & Gardner, 1996).

Expectations to both give and receive support are higher in cooperative climates. In high cooperative climates, support is prevailing—not something to be earned, rationally exchange, or offered for personal gain. Instead, members are expected to offer one another support based upon norms rather than merit or cultivation of unique or individually useful bonds (Tjosvold, 1988). In effect, this erases the relative advantage of high performers to *earn* support. Supporting this idea, studies demonstrated that cooperative contexts positively related to peers providing support regardless of individual differences (Chen, Huang, & Tjosvold, 2008). We suggest cooperative climates constrain motivation to build supportive relationships with high performers in particular since peer attempts to gain resources by association defy cooperative norms. Offering greater support to high performers may appear as unnecessarily helpful to individuals who do not need it or inappropriately instrumental since peers are supposed to get and give support indiscriminately rather than invest in certain relationships over others. In contrast, self-interest is common in low cooperative climates, where offering support to others based upon a rational calculus seems more permissible. Finally, in high cooperative climates, when peers view high performers as more beneficial this may simply meet their expected level of cooperative exchange norms since individual are insensitive to gains above expectations. Even if peers view high performers as exceeding their level of production for the group, evidence suggests that going above and beyond may earn them no added benefit (Bercovitz, Jap, & Nickerson, 2006).

We expect high cooperative climates also amplify peer motivation to minimize individuals who comparatively standout—not just to protect individual interests but also on behalf of the group. High performers represent deviance from performance norms, which may be view as a threat to the commonality and solidarity prescribed by cooperative climates (Dentler & Erikson, 1959). Peers target group members who deviate from norms, especially when norms are strong (e.g., Levine, 1989; Tajfel, 1981) and collective selves are activated (Brewer & Chen, 2007). Cooperative climates may also color peers' judgment of high performers' contributions. In low cooperative climates, efforts to differentiate one's performance qualifies as a reasonable pursuit. However, in climates that prime solidarity and positive interdependence, "stand out" contributions could be viewed as self-seeking, selfishly excessive, and aimed inappropriately at differentiating oneself. Lending indirect support to this, Kim and Glomb (2010) found that peers were more likely to victimize talented coworkers who they considered agentic and motivated by self-interested. The mistreatment of "rate busters" also occurred in a highly cooperative environment—the unionized factory floor (Dalton, 1948).

A potential alternative argument might be that cooperative climates amplify the penalty for the aggressing peers and therefore may constrain, rather than facilitate, motivation to act upon threat perceptions. However, it is important to recognize that cooperative norms do not necessarily

prescribe niceties but rather emphasize collaboration, advocate commonality, and expect peers to weigh group interest over self-interest and differentiating oneself. Related, research has shown that peers bully others more aggressively when they believe it is on behalf of the group (Einarsen, Hoel, Zapf, & Cooper, 2003). In addition, in more cooperative contexts, peers may depersonalize individual relationships with others (Brewer & Gardner, 1996). We expect this can desensitize peers to their own antisocial behavior and enable them to self-license lashing out against members who detract from group solidarity. Because frequent interactions and closer collaboration are common to cooperative climates (Chatman & Flynn, 2001; Dutton & Heaphy, 2003), peers also may have more opportunities to undermine threatening high performers. Upon these premises and related evidence, we contend:

> *Hypothesis 5:* A higher cooperative climate penalizes high performers, such that it (a) weakens the indirect effect of relative performance on social support from peers, through peer perceptions of benefit to resources, and (b) strengthens the indirect effect of relative performance on undermining from peers, through peer perceptions of threat to resources.

Overview of Studies

We tested these hypotheses in two studies (IRB approval: 395402–1, University of Maryland; 1411S55163, University of Minnesota). First, we tested our model in a field study of a large chain of Taiwanese salons (Study 1). Second, we conducted an experiment with U.S. business school students (Study 2) in order to (a) test effects in another task and country context; (b) causally link high performers to increased support, undermining, and peer perceptions of benefit and threat; and (c) ensure threat perceptions positively predicted undermining over and above known mediators (i.e., envy; Kim & Glomb, 2014).

Study 1

Method

Sample, design, and procedures

We conducted a time-lagged field study, collecting multilevel, multisource data from 414 stylists working for 120 salons in northern Taiwan. The salons offered numerous advantages for testing our theoretical model. First, the context involved high levels of interaction. Stylists work in an open space, which makes performance indicators (i.e., customer satisfaction and output of service treatment) discernable to peers and interactions frequent and visible. This also enables opportunities for stylists to experience both support and undermining (Duffy et al., 2002). Second, salons require orchestration of individual and group tasks among coworkers in order to effectively serve customers. Stylists serve their customers mostly by themselves during the service encounters; however, they also frequently work with one another on social, technical, and administrative activities (e.g., client consultations or learning new techniques). Third, examining this phenomenon was of practical value to our partnering organization, which actively sought to understand influencers of employee turnover—an issue that perennially plagues the industry. Fourth, in contrast with the common U.S. salon business model, Taiwanese stylists are more interdependent (i.e., they cotrain and provide more backup of one another) and tipping is

uncommon. Instead, stylists are compensated based upon both their individual monthly sales and their salon's overall sales. This hybrid incentive system creates a balanced environment where peers may consider high performers as both beneficial (e.g., contribution to store sales) and threatening (e.g., competition for customers) to resources.

Upon securing organizational approval, trained research assistants visited all of the 120 salons located in the salon chain's northern region of Taiwan to invite managers and employees to participate in a research study. At Time 1, research assistants collected manager-rated job performance and stylists' self-reported demographics as well as workgroup cooperative climate. Research assistants returned 8 weeks later to administer Time 2 measures, which captured perceptions of benefit and threat as well as experiences of support and undermining using a network approach. Responses were kept confidential from managers and organizational leaders.

Managers from all 120 salons participated. At Time 1, 395 employees participated (95% response rate). At Time 2, 352 employees participated (85% response rate). Our phenomenon centers on social dynamics within workgroups. Therefore, we included only salons that had at least three stylists (the minimum size to theoretically be considered a workgroup; cf. Glomb & Liao, 2003; Levine & Moreland, 1990; Simmel, 1950). The final sample included 936 dyadic ratings from 350 stylists within 105 salons. Stylists were predominately female (93%), averaged 28-years-old, and 86% held at least a bachelor's degree. Token gifts to express our gratitude for study participation were given to everyone who volunteered (valued at approximately $10).

Study 1 data were collected in tandem with the data used in Dong, Liao, Chuang, Zhou, and **Campbell**'s (2015) study on the effects of customer and leader empowerment on service employee creativity during customer-service encounters. These studies make different theoretical contributions and examine unrelated phenomena. We sampled salon managers and stylists in both investigations. Though, in the Dong et al. (2015) article, we used experienced-sampling of stylists and customer-rated dependent variables. There is no overlap among relationships or variables, with one exception: use of team size as a control variable in each study.

Measures

All measures were translated into Chinese and then back-translated by two independent bilingual translators to ensure they retained conceptual meaning (Brislin, 1980). We used Likert-scales anchored at 1 (*not at all*) and 5 (*to a very great extent*), unless otherwise specified.

Job performance

Managers rated every stylists' job performance from 1 (*needs much improvement*) to 5 (*excellent*) on Welbourne, Johnson, and Erez (1998) four-item measure for job role performance (e.g., "quality of work" and "quantity of work;" α = .89).

We chose manager-rated performance over peer-rated performance for several reasons. First, this design reduced common method bias, which could have inflated the effects between peer-rated performance and peer-rated benefit and threat perceptions (cf. Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Second, our arguments hinge upon peer social comparisons that influence their

evaluations of others' impact on resources. Because managers mete out a large proportion of work resources, we expected their judgments to be consequential. Third, manager review of performance maximizes external validity given its widespread use in organizations (Smither, 2012). Because we used manager ratings of individual performers, we modeled job performance at the individual-level. We also verified the assumption that peers could discern performance differences within workgroups by assessing peer-rated job performance, which correlated significantly with manager-rated job performance, $r = .58$, $p < .01$.

Perceived threat and benefit to resources

Guided by the application of Spreitzer's (1996) access to resources scale into a network assessment format (e.g., Seibert, Kraimer, & Liden, 2001), we asked peers to rate the extent to which each individual in their workgroup benefitted and threatened their access to material and social resources at work. Two items measured perceived benefit (e.g., "is a beneficial source of resources to me, like customer contacts, ideas, and supplies;" $\alpha = .77$) and three items measured perceived threat (e.g., "uses more of his/her fair share of the groups resources, like supplies, space, and time with the boss;" $\alpha = .71$). In the salon context, salient material resources included products (e.g., hair care products), space for customers and workstations, shared equipment (e.g., hair dryers, shampoo stations), salon bonus eligibility, and preferred shifts. Salient social resources are things such as reputation and popularity, favor with colleagues, preferred customer assignments, referrals, time and attention from one's manager, and occasionally salon recognition from organizational leaders.

Support and undermining

We relied upon a network approach to assess performer-rated support and undermining. We used five items from the social support scale created by Barrera, Sandler, and Ramsay (1981; e.g., "let you know he/she will be around if you need assistance"). We chose these items based upon strength of factor loadings and contextual relevance to work relationships. The internal consistency of items was high and comparable with studies using longer variations of the scale ($\alpha = .92$). We captured social undermining using Duffy, Ganster, Shaw, Johnson, and Pagon's (2006) seven-item scale (e.g., "belittled you or your ideas; $\alpha = .97$).

Cooperative climate

We used the cooperative psychological climate scale (e.g., "there is a high level of cooperation between stylists;" Chatman & Flynn, 2001; $\alpha = .84$). Interrater agreement (i.e., $rwg(j)$; cf. James, Demaree, & Wolf, 1984) was high, averaging .93 across the 105 salons (LeBreton & Senter, 2008). ICC(1) was .25, indicating group membership could explain 25% of the variance in cooperative climate. The reliability of the group means, ICC(2), was .53, $F(104, 245) = 2.11$, $p < .001$, which supports our expectation that cooperative climate varied meaningfully between salons. Together these statistics supported aggregation to the workgroup level (i.e., salon-level; Bliese, 2000).

Control variables

To rule out alternative explanations, we controlled for performer age, education, and tenure, as well as salon size at the workgroup level. Older, more educated, and longer-tenured performers are likely to have more status, seniority, or perceived expertise (Berger, Fiske, Norman, & Zelditch, 1977; Bunderson, 2003), which we considered important to isolate from performance to ensure performance rather that status was driving peer perceptions and behaviors. Longer-tenured workers are also slightly more likely to experience antisocial behavior at work (Bowling & Beehr, 2006). We controlled for workgroup size because research has linked larger groups to higher levels of undermining (Duffy et al., 2006) and odd-numbered groups with greater cohesion compared with even-numbered groups (Menon & Phillips, 2011).

Analytical strategy

We specified a three-level model, with the multiple peers (Level 1) of each employee (i.e., the focal performer) nested within that employee (Level 2), and the multiple employees of a workgroup nested within that group (i.e., salon; Level 3). Unless otherwise specified, we grand-mean centered predictors. Perceived benefit, perceived threat, support, undermining, and peer performance reside at the dyadic level (Level 1). The intercept-only models for support and undermining indicated that substantial variance resides at the dyadic, individual, and workgroup levels of analysis. For support, variance attributable to the relationship (Level 1) was 31%, to the performer (Level 2) was 51%, and to the workgroup (Level 3) was 18%. For undermining, variance attributable to the relationship (Level 1) was 73%, to the performer (Level 2) was 15%, and to the workgroup (Level 3) was 12%. We modeled manager-rated performance at Level 2 and group-mean centered it to match our theory (i.e., individual's relative performance within the workgroup; cf. Hofmann & Gavin, 1998). Age, education, and tenure were treated as Level 2 control variables (i.e., performer characteristics). We modeled cooperative climate and salon size at the workgroup level (Level 3).

We tested hypotheses using three-level random coefficient modeling in HLM 7.0 (Raudenbush, Bryk, & Congdon, 2004) to model and account for the nested structure of these data (Hofmann, Griffin, & Gavin, 2000). Following Aiken and West (1991), we first entered control variables, adding relative job performance (our distal predictor), then mediators, and then interactions in subsequent models. We assessed the indirect effects of relative performance on peer social responses, relying on the approach described by MacKinnon, Lockwood, and Williams (2004) and the interactive tool created by Selig and Preacher (2008) to create a confidence interval using R. This tool facilitated bias-corrected bootstrapping using 10,000 resamples to test whether indirect effects differed significantly from zero.

Results

Test of direct and indirect effects

Table 1 summarizes descriptive statistics and Table 2 summarizes analyses. We first assessed whether individual relative job performance was significantly related to peers' perceptions. Performance positively predicted coworkers' perceptions of both benefit ($\gamma = .17$, $p < .01$) and threat ($\gamma = .07$, $p < .05$) to resources, supporting Hypotheses 1 and 3, respectively. In support of Hypothesis 2, being viewed as beneficial to resources was positively related to the support

performers received from peers ($\gamma = .06$, $p < .05$) and the test indicated a significant, positive indirect effect for relative job performance on support (.01; CI 95% [.003, .016]). Similarly, being perceived as threatening to resources positively related to the undermining performers experienced from peers ($\gamma = .06$, $p < .01$) and calculations indicated a significant, positive indirect effect for relative job performance on undermining (.006; CI 95% [.001, .011]), which supported Hypothesis 4.
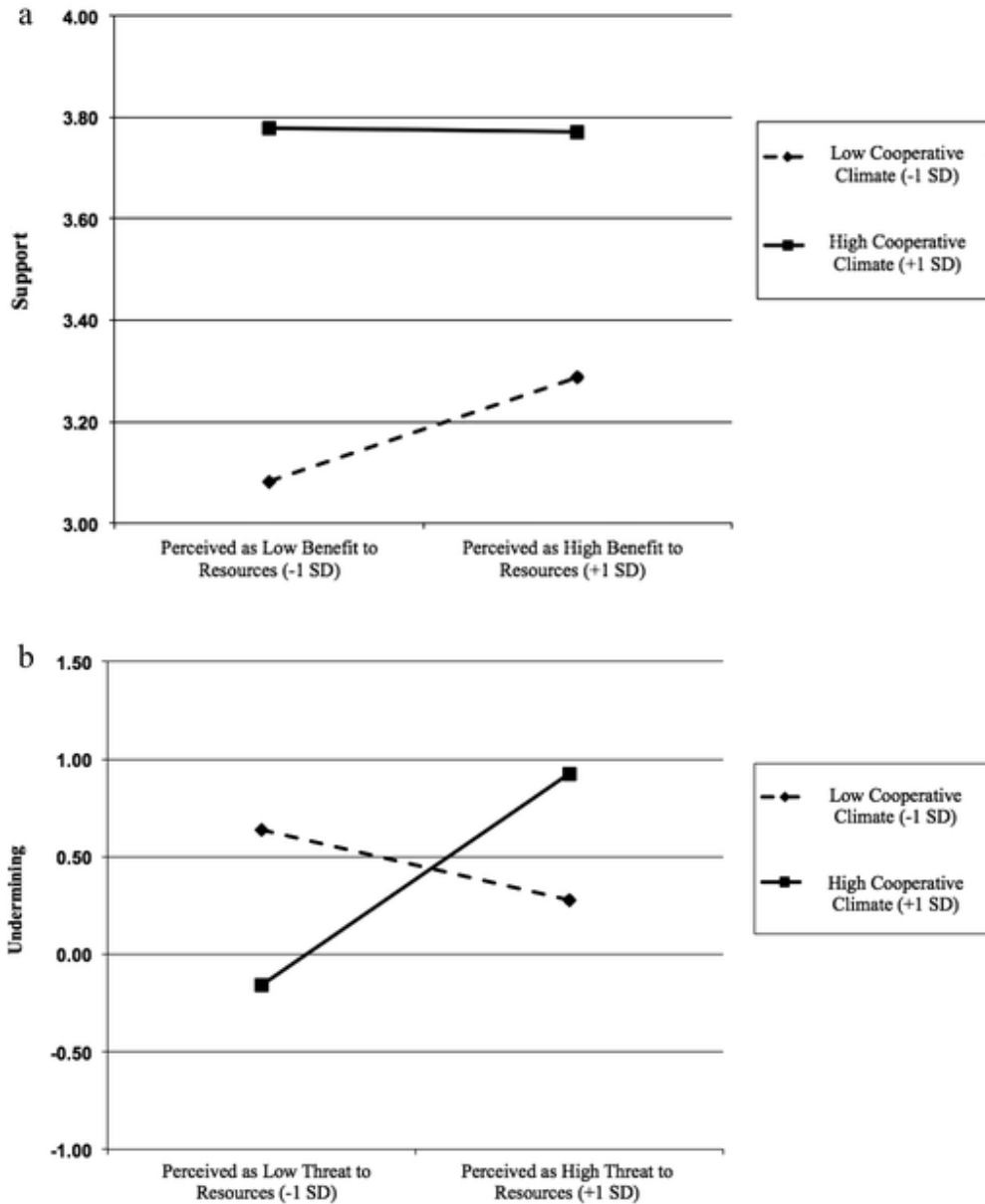

Figure 2. Simple Slopes of Interactions. (a) Effect of cooperative climate on benefit—support link (field study). (b) Effect of cooperative climate on threat—undermining link (experimental study).

Table 1. Study 1 Means, Standard Deviations, and Correlations

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Manager-rated job performance	3.52	.80	(.89)										
2. Perceived benefit to resources (peer-reported)	3.53	.82	.12**	(.77)									
3. Perceived threat to resources (peer-reported)	2.96	.68	.07*	.25**	(.71)								
4. Social support (performer-reported)	3.53	.82	−.01	.13**	−.12**	(.92)							
5. Social undermining (performer-reported)	1.77	.83	−.03	−.08	.14**	−.29**	(.97)						
6. Performer age (in years)	28.30	6.74	.16**	.03	.09**	−.14**	.06	—					
7. Performer tenure (in month)	80.98	61.42	.17**	.09*	.06	−.10**	.03	.61**	—				
8. Performer education level	2.09	.42	−.11**	−.12**	−.00	−.01	.01	−.23**	−.22**	—			
9. Manager-rated job performance	3.52	.80	.36**	−.06	−.01	.09*	.00	−.06	−.01	−.05	(.89)		
10. Salon size (number of stylists)	4.13	1.09	.06	.14**	.08**	.13**	−.06	.21**	.37**	−.17**	.06	—	
11. Cooperative climate	3.92	.59	−.05	.06	−.01	.27**	−.25**	−.07*	−.07*	.01	−.04	.01	(.84)

Note. $N = 936$ dyadic ratings. Correlations summarize bivariate relationships at the dyadic level and should be interpreted with caution as they fail to account for the nested nature of the data. Individual and workgroup variables were assigned down to Level 1. Internal consistencies display on the diagonal.
* $p < .05$. ** $p < .01$.

Table 2. Field Study Multilevel Hierarchical Linear Regression Results

Variable	Perceived benefit Step 1 γ	SE	Step 2 γ	SE	Perceived threat Step 1 γ	SE	Step 2 γ	SE	Support Step 1 γ	SE	Step 2 γ	SE	Step 3 γ	SE	Undermining Step 1 γ	SE	Step 2 γ	SE	Step 3 γ	SE
Intercept	3.47**	(.05)	3.47**	(.05)	2.91**	(.04)	2.92**	(.04)	3.46**	(.05)	3.46**	(.05)	3.48**	(.05)	1.79**	(.05)	1.79**	(.05)	1.79**	(.05)
Level 1–Dyadic																				
Perceived benefit to resources											**.06***	**(.03)**	.07**	(.02)			−.06**	(.02)	−.06**	(.02)
Perceived threat to resources											−.07*	(.03)	−.08**	(.04)			**.06***	**(.02)**	.06**	(.02)
Level 2–Individual (Performer)																				
Age	−.00	(.01)	−.01	(.01)	.00	(.00)	.00	(.00)	−.01*	(.01)	−.01*	(.01)	−.02	(.01)	.00	(.01)	.00	(.01)	.01	(.01)
Tenure	.00**	(.00)	.00*	(.00)	.00	(.00)	.00	(.00)	−.00	(.00)	−.00	(.00)	−.00	(.00)	.00	(.01)	.00	(.00)	.00	(.00)
Education level	−.12*	(.07)	−.11*	(.07)	−.01	(.05)	.01	(.05)	−.03	(.10)	−.03	(.09)	−.01	(.11)	.04	(.11)	.03	(.11)	−.02	(.10)
Job performance			**.17***	**(.04)**			**.07***	**(.03)**			−.04	(.06)	−.07	(.06)			−.10	(.07)	−.09	(.07)
Level 3–Workgroup																				
Salon size	.04	(.04)	.05	(.05)	.05	(.04)	.05	(.04)	.12**	(.05)	.12**	(.05)	.12**	(.04)	−.04	(.05)	−.04	(.05)	−.04	(.04)
Cooperative climate													.05*	(.47)					−.97*	(.43)
Average Group Performance × Cooperative climate													.26	(.51)					−.42	(.48)
Average Group Performance × Cooperative climate													−.04	(.13)					.12	(.13)
Cross-level interactions																				
Job Performance × Cooperative Climate													−.10	(.11)					.20	(.18)
Perceived Benefit × Cooperative Climate													**.11***	**(.07)**					.02	(.08)
Perceived Threat × Cooperative Climate													.12	(.10)					**.04**	**(.07)**
Pseudo R^{2a}	.02*		.03*		.00		.02*		.01*		.03*		.05*		.00		.04*		.09*	

Note. N = 936 (Level 1), 350 (Level 2), and 105 (Level 3). Coefficient estimations are fixed effects gammas (γ) with robust standard errors. Coefficients corresponding to hypothesized relationships are in bold.
[a] Sum of total variance attributable to within and between variance components (Snijders & Bosker, 1999). * $p < .05$. ** $p < .01$ (one-tailed).

Table 3. Effect of Performance on Support Via Perceived Benefit at High and Low Levels of Cooperative Climate

Moderator	Stage First (a) Estimate	SE	Second (b) Estimate	SE	Effect Direct (c′) Estimate	SE	Indirect (a * b) Estimate	CI
Cooperative climate								
High (+1 *SD*)	.18**	(.05)	.01	(.02)	−.07	(.06)	.00	[−.004, .008]
Low (−1 *SD*)	.15**	(.04)	.13**	(.02)	−.05	(.06)	.02**	[.010, .030]

Note. N = 936 (Level 1), 350 (Level 2), and 105 (Level 3). 90% confidence internals for indirect effects (a * b) are based upon 5,000 Monte Carlo replications using R. ** $p < .01$ (two-tailed).

Moderating effects of cooperative climate

Hypotheses 5 suggested that high cooperative climates would carry less favorable treatment for high performers by (a) weakening the link between peer perceived benefit and support, and (b) strengthening the link between peer perceived threat and undermining. Findings demonstrated that cooperative climate moderated the benefit—support link ($\gamma = -.11$, $p < .05$) but not the threat—undermining link ($\gamma = .04$, *ns*). To understand this cross-level interaction, we plotted the simple slopes (cf. Sibley, 2008; Figure 2a), and calculated the indirect effect of individual job performance on peer support at high and low levels of cooperative climate (see Table 3). High cooperative climate resulted in more support in general for individuals, but high performers only earned additional support in low cooperative climates (.02; CI 90% [.010, .030]). Results therefore supported Hypothesis 5a but not 5b.

Exploratory analysis: Moderating effects of peer performance

We explored whether peers' own performance moderated their judgment and treatment of high performers. We offered no formal hypotheses, though expected that similarity in performance makes peers more prone to both support and undermine high performers as they may more easily identity with them but also consider high performers as more direct competition. Findings indicated that peers' perceptions of high performers (as beneficial or threatening) and support to high performers did not vary as a function of their own performance. However, results revealed a significant interaction for peer performance on undermining ($\gamma = .04$; $p < .05$). Test of simple slopes suggested high performers experienced significantly more undermining from high performing peers ($\gamma = .09$; $p < .01$) than from low performing peers ($\gamma = .03$; $p < .01$; Figure 3).
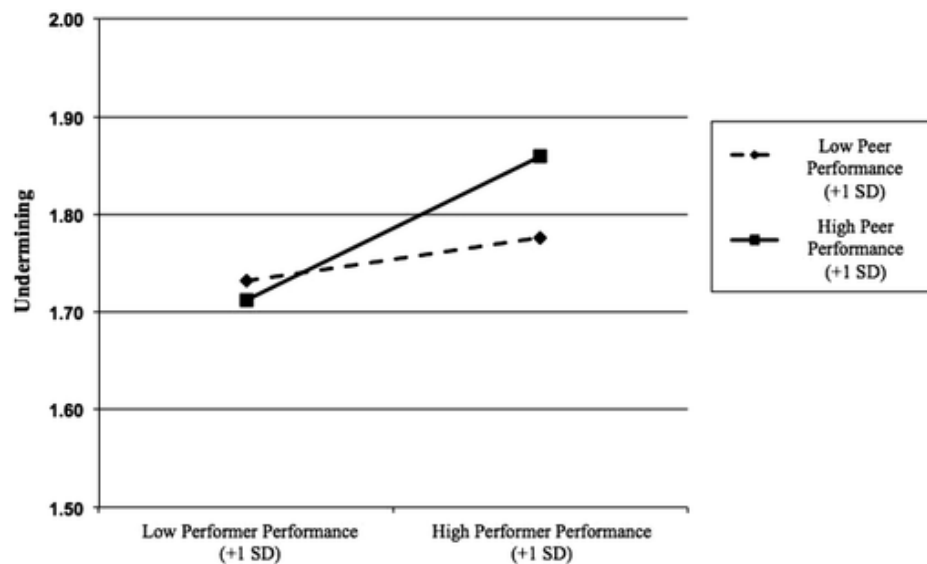

Figure 3. Simple slopes of interaction. Effect of peer performance on performer performance—undermining link (field study, exploratory analysis).

Discussion

The results from the field study supported a broadened view of social consequences of high performance.[2] As relative job performance increased, individuals experienced more support and undermining from peers. These effects were mediated by peer perceptions that high performers were both beneficial and threatening to work resources, respectively. In more cooperative climates, high performers' advantage for earning support vanished. High performing (compared with low performing) peers victimized other high performers significantly more. Findings are largely aligned with predictions. Nonetheless, we conducted a second study for several important reasons. First, we wanted to constructively replicate the results in a different culture and task context to strengthen confidence in their generalizability. Second, while high performance has been linked to victimization, studies to date have been correlational. We sought to establish a causal link between high performance to social support and undermining. Third, we wanted to objectively manipulate individual performance information to rule out concerns that the phenomenon was driven by supervisor favoritism. Fourth, we viewed it as important to show that performance affects peer perceptions and subsequent behaviors over and above envy, an emotional reaction, which Kim and Glomb (2014) have linked to high performer victimization.

Study 2

Method

Sample and design

Two-hundred and 84 undergraduate business majors from a U.S. university participated in the study as a partial fulfillment of their course research requirement. Students were informed that they would work together in virtual teams. We designed a virtual team context to maximize both experimental control and psychological realism by enabling some early interaction between members but then allowing us to script fabricated messages in later rounds. There were 80 teams with three or four members each ($M = 3.55$). We designed a 2 (focal performer: high vs. average) $\times$ 2 (cooperative climate: high vs. low) between-subjects experiment. Participants worked to complete rounds of critical thinking and analytical reasoning tasks comprised of questions made publically available from LSAT, GMAT, and Mensa tests.

Procedures

During the first 15 min, team members worked together face-to-face in a conference room. We incentivized students to care about performance by explaining that the five top performing teams earned cash ($150 for teams of three and $200 for teams of four). Objective performance feedback was manipulated for the purpose of the study, but we also recorded actual scores to reward teams based upon merit at the end of the semester. The experimenter asked participants to introduce themselves and described the task. To prepare for the type of questions they would encounter when "collaborating virtually," teams received practice questions to review and discuss. Next, the experimenter directed participants to an adjoining room with individual

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[2] Findings are robust with and without control variables in the equations. We also captured customer-rated satisfaction across an average of 9.08 customer service encounters per stylist. When we reestimated all models with these customer satisfaction ratings in place of the manager-rated performance, all results held and are available upon request from the first author.

workstations (i.e., cubicles with computers) and told them to log in to "rejoin their teammates virtually." In reality, they completed the remainder of the study as individuals.

In the simulated virtual team environment, participants were instructed on how to "log in to be connected to their team members." Preset, timed text appeared as instant messages from an "administrator" and guided participants through tasks with periodic instructions and messages, including group questions or opinion polls. Members saw their own responses and scripted messages feigned to be from teammates to legitimize the ruse that they were virtually connected.

These messages corresponded to the names of teammates that they worked with face-to-face.

Before Round 1 of the task, each participant was presented with a unique task strategy (e.g., how to identify faulty assumptions, how to efficiently eliminate incorrect answers) and informed that sharing what they learned may help team performance. Participants could actually interact and share strategies with team members at three points in time using Google group chat: After learning their unique task strategies and after the first two task rounds. All participants completed three regular task rounds and one bonus task round. We randomly assigned one member of each team (i.e., Member 1) to the role of focal performer and randomly manipulated his or her performance (i.e., average vs. high). Because these members were part of the treatment rather than exposed to it, we removed their data from analyses.

Manipulations

Performance

The focal performer's performance scores were similar to the peers' average scores in the control (i.e., average performer) condition and notably higher than the peers' average score in the experimental (i.e., high performer) condition. All other members' (i.e., participants) performance scores were comparable across conditions (please see Appendix). Performance scores of all members were shown on the computer screen after each round.

Cooperative climate

We manipulated high versus low cooperative climate by following the multipronged approaches advocated by studies that have contrasted cooperative with competitive climates (e.g., Hill et al., 2009; Tjosvold, Sun, & Wan, 2005; van Knippenberg, van Knippenberg, & Wilke, 2001). While the low cooperative climate condition signaled more competitive norms and rewards (i.e., success of workgroup members could inhibit participants' own goal attainment), we described it as low cooperative climate rather than competitive because aspects of the task and rewards also remained cooperative (i.e., success of workgroup members' could promote participants' own goal attainment; Deutsch, 1949, 1973). In doing so, we sought to reflect a balanced mix of cooperative and competitive aspects common to most workgroups (De Dreu, Weingart, & Kwon, 2000; Tjosvold, 1998) and those of Study 1 workgroups.

First, an authority figure (i.e., the experimenter) described varying levels of cooperative values for how teams might best work together. One version of the script highlighted **high cooperative interactions** and the other *low cooperative interactions*. Sample text included:

> Virtual teams make communications more difficult, so be sure to devote some time to **collaborative discussion**/*spirited debate"* . . . "**collective collaboration**/*healthy competition* within the team is fine—just make sure you complete your responsibilities.

Second, we contrasted the reward structures to reinforce varying levels of cooperative climate across conditions. In the high cooperative condition, members of top performing teams evenly split the cash prize, $50 per person. In the low cooperative condition, members of top performing teams qualified for the cash prize, then rewards were allocated base upon each members' performance relative to the group, ranging from $15 to $110 per person. Evenly split rewards focused members toward cooperative, team-oriented interaction, while the differentiated rewards focused individuals more toward maximization of their own outcomes (Hill et al., 2009).

Measures

Perception of benefit and threat to resources

After Round 2 feedback, we used the same scale and approach as Study 1 to assess the extent to which peers perceived other members of their team as beneficial or threatening to their own resources (1 = *not at all*, 6 = *to a very great extent*; α = .88 and α = .74, respectively).

Support

While socioemotional forms of helping were unlikely to naturally emerge in the lab, we objectively observed two proxies for peer support toward the focal performer. First, we captured whether participants would *offer help* to the performer. After Round 2, participants were messaged that they finished the round early but two members were still working. The administrator then asked participants which member they would like to offer help: Either the focal performer (coded as 1) or another peer (coded as 0). Second, we assessed whether participants would *offer an opportunity* to the focal performer. After Round 3, participants were told that they qualified for a bonus round and were asked to choose one member to join them: The focal performer (coded as 1) or another peer (coded as 0). The message explained that each member would perform as an individual in the bonus round, the invited person would not help them or be able to receive help from them, and points earned would augment individual scores only. Therefore, participants themselves would not benefit directly; however, they may benefit indirectly by inviting the high performer (who may better add to the team's overall point total), which seems consistent with our theory and generalizable to how employees might benefit if they support high performers in organizations.

Undermining

As noted by experts on the phenomenon, the base rate for undermining within a small window of time is low (Zellars, Tepper, & Duffy, 2002). Like more affect-laden forms of support, it would

be difficult to naturally observe undermining in the lab. Thus, we created a situation to facilitate variance in undermining by simulating a chat between participants. Each peer was told they were paired with a teammate (not the focal performer) to complete a bonus round. Before the round, we told participants that they could chat virtually with their partner. We then sent scripted messages that appeared to be from the partner. The scripted chat mentioned the difficulty of the task and offered them a chance to respond. Then, the scripted partner messaged that s/he thought the "[focal performer's name] was kind of annoying." We captured peer responses to this undermining. Later, two raters coded responses using a 7-point scale. Responses ranged from actively defending the performer (e.g., "stop it, that's not nice!;" coded as −3), to neutral responses (e.g., "why is that?;" coded 0), to actively undermining the performer (e.g., "hahaha, I feel the same way, he sucks;" coded as 3). Blind to condition, the first author and a research assistant independently coded all responses and achieved high agreement, rwg = .90, and reliability, ICC(2) = .93, so we averaged these ratings.

Alternative mechanism: Envy

To ensure our mechanisms predicted responses to high performers over and above emotional reactions, we also measured peers' felt envy after Round 2 using Schaubroeck and Lam's (2004) four-item scale. Items were "I envy this person's task performance," "I feel inferior to this person's performance," "This person's success in the task makes me resent him/her," and "feelings of envy toward this person tormented me." (α = .77).

Performance differences

To verify that participants were attentive to differences in performance across conditions, we asked them about the extent to which each member "performed better than most team members" (1 = *disagree strongly*; 6 = *agree strongly*).

Cooperative climate

Participants reported cooperative climate on a 7-point scale using the same measure as Study 1 (α = .84).

Results

Manipulation checks

Consistent with our manipulation, participants reported that the focal performer performed better in the experimental condition compared with the control condition (M = 5.13 vs. M = 3.80; $p <$ .01). Similarly, participants reported significantly higher perceptions of cooperative climate in the high versus the low cooperative climate condition (M = 5.07 vs. M = 4.74; $p <$ .05).

Table 4. Experimental Study Means, Standard Deviations, and Correlations

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Performer condition (–1 = average performer; 1 = high performer)	.01	1.00	—								
2. Perceived benefit	3.53	1.15	.28**	(.88)							
3. Perceived threat	2.30	1.07	.29**	.25**	(.74)						
4. Felt envy	2.47	1.35	.40**	.08	.38**	(.77)					
5. Support: Offered help	.45	.50	–.32**	–.17**	–.05	–.08	—				
6. Support: Offered opportunity	.55	.50	.52**	.28**	.08	.15*	–.16*	—			
7. Undermining	.41	1.26	.19*	–.07	.15*	.13	.12	–.09	(.90)		
8. Climate condition (0 = low cooperative; 1 = high cooperative)	.48	.50	.03	.21**	–.14*	–.09	.09	–.09	–.12	—	
9. Cooperative climate	4.83	1.23	–.15*	.33**	.04	–.12	.02	.09	–.12	.15*	(.84)

Note. N = 204; internal consistencies display on the diagonal (Cronbach's alphas for multi-item variables and r_{wg} for social undermining coding).
* $p < .05$. ** $p < .01$ (two-tailed).

Table 5. Experimental Study Regression Results

	Perceived benefit		Perceived threat		Support								Response to undermining					
					Offered help				Offered opportunity									
	Model 1		Model 2a		Model 2b		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8		Model 9	
Variable	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE
Performer condition (–1 = average performer; 1 = high performer)	.32**	(.08)	.31**	(.07)	.17*	(.08)	–.68**	(.16)	.50**	(.18)	1.22**	(.19)	1.30**	(.25)	.27*	(.10)	.23*	(.11)	.21*	(.10)
Climate condition (0 = low cooperative; 1 = high cooperative)									.21	(.18)			–.03	(.22)					.03	(.10)
Perceived benefit to resources							–.17	(.15)	–.38*	(.21)	**.29***	**(.16)**	.29*	(.21)	–.21**	(.09)	–.24**	(.09)	–.22*	(.11)
Perceived threat to resources							.17	(.16)	.15	(.19)	–.31*	(.18)	–.33*	(.21)	**.19***	**(.09)**	**.17***	**(.09)**	.15	(.10)
Felt envy					.25**	(.06)											.04	(.08)	.05	(.11)
Cooperative climate									.28	(.21)			.22	(.26)					–.03	(.11)
Cooperative Climate × Benefit									**–.28†**	**(.19)**			**–.16**	**(.21)**						
Cooperative Climate × Threat																			**.27****	**(.11)**
R^2	.08**		.09**		.16**		.11**		.14**		.28**		.29**		.08**		.08**		.12**	
F or χ^2	17.89		19.47		19.44		23.31		23.75		59.51		47.60		4.61		3.65		3.16	
ΔR^2	.08**		.09**		.08**		.11**		.03*		.28**		.01		.08**		.08**		.04*	

Note. N = 204; support variables estimated with logistic regression and the remaining regressions are OLS. Bold coefficients represent hypothesized relationship of interest. † $p < .10$. * $p < .05$. ** $p < .01$ (one-tailed).

Hypothesis testing

Table 4 displays descriptive statistics for Study 2. To test hypotheses, we used OLS regression for continuous dependent variables and logistic regression for binary outcomes (i.e., support variables). Following prescribed procedures (Aiken & West, 1991), we regressed the dependent variable on performance condition, and then added more proximal predictors, and interaction terms. Table 5 summarizes results.

First, results supported Hypothesis 1 and Hypothesis 3: Participants in the high performer condition judged the focal performer as significantly more beneficial and more threatening to their resources ($b = .32$, $p < .01$ and $b = .31$, $p < .01$, respectively). We assessed peers' support toward the focal performer by first examining participants' decision to offer help. However, participants were significantly *less* likely to help the focal performer in the high performer condition compared with the control condition ($b = -.68$, $SE = .16$, $p < .01$; odds ratio = .51). Across both conditions, perceptions of benefit did not significantly predict offering help to the focal performer over another teammate ($b = -.17$, *ns*; odds ratio = .85). This may be because peers could not clearly see which choice was more valuable to them; they were unlikely to see one another in the future, which differs from the salon context. Second, we examined whether participants chose to offer an opportunity to the focal performer or another peer across high performer and control conditions. Results showed a positive relationship between benefit perceptions and support in the form of offering an opportunity ($b = .29$, $SE = .16$, $p < .05$). The odds ratio indicated that peers were 1.33 times more likely to invite the member they perceived as beneficial. The indirect effect for the high performer condition on peer choice to offer the opportunity to the focal performer was positive and significant (.093; CI 90% [.01, .19]), which supported Hypothesis 2. Third, findings indicated that threat perceptions positively predicted undermining ($b = .19$; $p < .05$). The indirect effect of performance condition was significant and positive (.053; CI 90% [.004, .11]), which supported Hypothesis 4. Our inquiry focuses on peers' comparison and rational consideration rather than their emotional reactions to high performers but we wanted to demonstrated that the effect of performance on undermining (through threat perceptions) explained unique variance over and above feelings of envy (cf. Kim & Glomb, 2014). When controlling for felt envy, threat perceptions still positively and significantly predicted undermining ($b = .17$; $p < .05$).

To test the proposed cooperative climate moderation, we added the climate manipulation (dummy coded), the hypothesized moderator (i.e., cooperative climate), and the interaction term to the model. The effect on perceived benefit—support relationship was not significant. Though, results revealed that high cooperative climates strengthened the positive relationship between peer threat perceptions and undermining. Analysis of simple slopes (cf. Aiken & West, 1991) indicated that the relationship between threat perceptions and social undermining was positive in high cooperative climates ($b = .24$, $SE = .09$, $p < .05$; see Figure 2b) but not significant in low cooperative climates ($b = -.04$, $SE = .08$; *ns*). We estimated the indirect effect of high performer condition on undermining when cooperative climate was high (.09; CI 90% [.029, .168]) and low (−.01; CI 90% [−.046, .022]). In summary, Study 2 results supported Hypothesis 5b but not 5a.

Discussion

Study 2 results largely converged with, and extended upon, those from Study 1. We found that manipulating objective performance from average to high (a) increased peer perceptions that the performer was beneficial and threatening to work resources, (b) increased the likelihood that peers would offer the performer an opportunity, and (c) increased observed undermining of the performer. Findings established causal links between high performers and positive and negative perceptions and behaviors from peers. We found that cooperative climates exacerbated the positive, indirect effect of high performance on undermining. Further, we replicated Kim and Glomb's (2014) finding: Envy linked high performance with undermining. Interestingly, the relationship between envy and undermining was no longer significant when controlling for perceived threat; however, the relationship between threat and undermining remained significant when controlling for envy. This may suggest that undermining of high performers is motivated more by peers' rational calculation rather than emotional reaction.

General Discussion

Theoretical Contributions and Implications

We sought to offer a broader model of social consequences of high performance that specifies how peers judge and intentionally behave toward high performers. Findings from field and lab studies showed both social advantages and disadvantages for high performers: Performance positively and significantly predicted social support and undermining from peers, mediated through contrasting perceptions of how performers impacted peer resources. Data also showcase that high cooperative climates can wash out high performers' advantage for support, yet exacerbate the prevalence of undermining. Results advance theory in several ways (see Table 6).

Table 6. Effect of Performance on Undermining Via Perceived Threat at High and Low Levels of Cooperative Climate

| | Stage | | | | Effect | | | |
| | First (a) | | Second (b) | | Direct (c′) | | Indirect (a * b) | |
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	CI
Cooperative climate								
High (+1 SD)	.38**	(.10)	.24*	(.09)	.12	(.14)	.09*	[.029, .168]
Low (−1 SD)	.25**	(.10)	−.04	(.08)	.25	(.14)	−.01	[−.046, .022]

Note. N = 204. 90% confidence internals for indirect effects (a * b) are based upon 5,000 Monte Carlo replications using R. * $p < .05$. ** $p < .01$ (two-tailed).

First, findings offer several important contributions to research on high performers' victimization and social experiences at work. Early management research first shed light on peer mistreatment of high performers (Roethlisberger & Dickson, 1939). Since then, research has indicated that peers may derive pleasure when high achievers get knocked down (Feather, 1994, 2012) and may bully them in the classroom (Peterson & Ray, 2006). Management scholars have started to rigorously examine this phenomenon in the workplace, offering compelling evidence that peers harm smarter coworkers (Kim & Glomb, 2010), high performers (Kim & Glomb, 2014), more generous coworkers (Irwin & Horne, 2013), and coworkers whose performance deviates from average (Jensen et al., 2014). We join this thread of research and build knowledge of *how*, *why*, and *when* peers treat high performers positively and negatively. Findings showed that peers both supported and undermined high performers. At face value, this may seem encouraging and

complementary to studies on high performer victimization. However, this combination of behaviors may actually prove more detrimental than it is balancing to high performers' social experience. Results from studies of personal and supervisor-subordinate relationships converge to reveal that receiving support and mistreatment from the same source can intensify individuals' tension, psychological strain, reactivity, and social uncertainty compared with mistreatment alone (Duffy et al., 2002; Hobman et al., 2009; Uchino et al., 2004).

Second, our model expands upon mechanisms driving peer behaviors by specifying dual explanatory pathways for peer support and undermining. Doing so enabled our research to highlight an important paradox: Peers view high performers as both beneficial and threatening to their resources at work. This complements past work that linked high performance victimization through peers' emotional reactance (i.e., envy; Kim & Glomb, 2014). Our findings suggest that—above and beyond envy—a more strategic calculation drives how peers treat high performers at work. By theoretically and empirically grounding our investigation to conservation of resources theory, we also were able to specify tangible resource considerations that peers make when working with high performers. This lends sharper understand of the mechanisms beyond general comparison and feelings of inferiority and opens avenues for future investigation on psychological mechanisms shaping social responses to high performers.

Third, we introduced cooperative climate as a contextual moderator. Cooperative climates can benefit groups in terms of efficiency and effectiveness (Chatman & Flynn, 2001). Ironically, cooperative climates may prove a greater disservice for the individuals who disproportionately contribute to organizational success. Taken as a whole, results across studies suggest peers in high cooperative climates regulate behavioral expression of their rational calculus consistent with mutual interest of the group rather than self-interest. In high cooperative climates (Study 1) peers did not offer more support to high performers than lower performers—in spite of viewing them as more beneficial (Study 1) and (Study 2) they were more likely to undermine high performers that they viewed as threatening (Study 2). Findings imply that, in high cooperative climates, peers may be reactive to the positive deviance of high performers, motivated to protect the workgroup solidarity and commonality, and vested in maintaining cooperative standards; as a consequence, high performers received less support and more undermining.

Fourth, to delineate mechanisms, we invoked theories of social comparison and conservation of resources. Social comparison theory has explained a variety of work phenomena. However, most upward comparison research has focused on when individuals make assimilations *or* contrasts—treating the question as either/or (Buunk & Gibbons, 2007). We explain how upward comparisons can spark *both* assimilation and contrast. In doing so, we expand the predictive power of social comparison theory to explain peers' paradoxical cognitive and behavioral responses to high performer. Research has usefully applied social comparison theory to explain why peers may harm high performers (e.g., Lam et al., 2011). However, like its application, studies have failed to consider how upward comparison may be *self-enhancing* (Collins, 1996) and have limited its consideration to how high performers impact peers' *personal view of self*. We integrate social comparison with conservation of resources theory to offer a new, utilitarian view of how social comparison with high performers can both enhance and deplete peers' *resources*. Our model suggests that upward comparisons motivate peers to both accumulate new resources and conserve current resources from high performers. This also contributes to

conservation of resources theory, which is fundamentally a theory of motivation but is most commonly invoked to explain conservation models related stress and strain (Halbesleben & Buckley, 2004)—with far less attention paid to the accumulation path compared with the conservation path and even less to both resource paths simultaneously (Halbesleben et al., 2014).

Fifth, our study is the first to examine consequences of high performance in a controlled setting. By replicating field study results in a lab experiment, Study 2 established causal order and ruled out alternative explanations for why peers supported and undermined high performers. In the field, our data also enabled consideration of how peers' own performance influences their judgment and treatment of high performers. Results demonstrated that peer performance did not significantly affect their perceptions of high performers or support offered to them. Though, interestingly, high performing peers were more likely to undermine fellow high performers, which may indicate they consider high performers as more direct threats or see it as less costly to mistreat them because they themselves have idiosyncratic credit to spend (Hobfoll, 2001). Because the literature on high performers has predominantly shed light on their role as victims rather than perpetrators, this effect may point toward a useful avenue for future research.

Limitations and Future Research

Contributions should be viewed in light of study limitations, which we hope will stimulate future investigation. First, we focused on climate and explored peers' own performance as moderators. These choices came at the cost of examining performer characteristics as moderators. Interesting studies have shown that other-oriented high performers may be buffered from victimization (Jensen et al., 2014; Kim & Glomb, 2010) while other work has shown peers lash out against "do-gooders" (e.g., Minson & Monin, 2012). Consequently, clarifying whether performer characteristics moderate effects seems valuable. Study 1 results underscored this: Substantial variance in support and undermining behaviors was attributable to between-performer differences (Level 2). Performer gender may be of particular consequence given the robust evidence that both male and female peers penalized women for success (Ellemers, Rink, Derks, & Ryan, 2012; Heilman & Okimoto, 2007; Heilman, Wallen, Fuchs, & Tamkins, 2004). Stylists were overwhelmingly female, leaving our data unable to address this but we hope future work can unearth whether high performers are treated differently across gender. Cognitive ability may also interact with performance to impact peer attributions and treatment of performers. Peers may judge average performers of high cognitive ability as loafers but laud high performers of low or average cognitive ability as go-getters. Anecdote and evidence indeed suggest that people prefer underdogs who have to struggle for success (Vandello, Goldschmied, & Richards, 2007).

Second, we did not consider how peers' characteristics, beyond their own performance, affect their evaluation of high performers or high performer-directed behaviors. Our theoretical and empirical accounts feature peers' benefit and threat perceptions as dually increasing in the midst of a high performer. However, the ratio of perceived benefit versus threat may vary based upon peer characteristics. Social comparison work suggests peers' view of self would impact the strength and direction of their judgments (Buunk & Gibbons, 2007). Peers high in learning-orientation or promotion focus may cast high performers as more beneficial, while sensitivity to threat may be more salient for peers high in prove-orientation or prevention focus. Self-interested peers may be especially sensitive to threatening comparison and more reactive to high

performers. Though, they may also admire high performers while prosocial peers may view their efforts as self-seeking and judge them punitively. In kind, conservation of resources suggests peers' inventory of their own resources impacts the strength and direction of their rational calculus (Halbesleben et al., 2014). When peers perceive having fewer resources, they can become more reactive or stressed by colleague comparison and related politics (Hochwarter, Ferris, Laird, Treadway, & Coleman Gallagher, 2010). Type of performer contribution may also impact peer calculation of benefit versus threat. Peers may react differently to high performers who overcontribute in affiliative (i.e., overhelping or oversacrificing) versus challenging-oriented ways (i.e., overinnovating or overimproving; e.g., Hardy & Van Vugt, 2006; Peterson, 1999; Willer, 2009). Further, our studies offered convergent, but not directly conclusive, evidence that high performers lose social advantage and incur greater social penalty in cooperative groups. Work to examine how group climate affects social treatment of high performers could prove informative.

Third, our studies cannot account for extreme levels performance (i.e., outliers), which may have prevented us from finding nonlinear effects. Extreme performance differences are rare in the salon context because exceptional performers often leave to start their own salons and very low performers are let go. Similarly, our experimental manipulation did not vary the magnitudes of high performance. Jensen et al. (2014) found that peers targeted performers who were at either the highest or lowest levels of the performance spectrum. However, like Kim and Glomb (2014), when we tested curvilinear effects, our field data did not replicate these curvilinear findings. We hope future research can address this inconsistency.

Fourth, our results cannot speak to performance effects resulting from performance change or trajectory. Indirect evidence from the status and power literature indicates that individuals who rise quickly garner more attention than those who rise slowly or those who decline (e.g., Pettit, Yong, & Spataro, 2010; Sivanathan, Pillutla, & Murnighan, 2008). Peers also may confer more influence to those with positive rather than declining performance momentum (Pettit, Sivanathan, Gladstone, & Marr, 2013). Examining the impact of within-person performance trajectory seems both theoretically intriguing and important to practice.

Practical Implications

High performers are difficult employees to retain and continue to be an area of high investment (Capelli & Keller, 2014). In global studies, 30% of high performers reported lack of engagement and 25% expected to work elsewhere within a year (Martin & Schmidt, 2010). This is often attributed to increased job prospects for high performers. We identify an alternative driver of voluntary turnover: Challenging social interactions with peers. Research has shown high performers commonly earn higher pay and faster promotion, but also struggle to maintain high performance and leave sooner compared to peers, which may be due to a lack of positive social relationships (e.g., Bidwell, 2011; Groysberg & Lee, 2009; Groysberg, Lee, & Nanda, 2008). Undermining, coupled with social support from the same source, can induce more stress and social tension for high performers and in turn hurt their effectiveness and wellbeing (Duffy et al., 2002; Uchino et al., 2004). Organizations may benefit by focusing on ways to foster social acceptance of high performers in order to keep them.

Our research can also inform managers and high performers. For managers, cultivating and protecting positive interactions within workgroups is a key responsibility, and yet they may underestimate the harmful effects that performance differentiation can have within workgroups (e.g., Christie & Barling, 2010; Groysberg, Nanda, & Nohria, 2004; Lam et al., 2011). Managers should stay mindful of how performance differences shape social dynamics. Further, while more organizations follow trends to emphasize cooperation and collaboration, results imply that managers should keep in mind the impact that cooperative norms can have on high performers—especially because workgroup climate is at least partially influenced by aspects managers can control (Ostroff et al., 2013). In tandem, high performers should be aware of how their performance may impact professional relationships. Strong performance benefits individual careers. However, as the nature of work grows more complex and requires supportive networks, high performers must form strong bonds with coworkers and develop the social capital needed to maintain high achievement and thrive at work (Dutton & Heaphy, 2003; Seibert et al., 2001).

Conclusion

Although victimization of high performers has received recent attention, we offer theory and evidence that their social experiences at work may be more complex and nuanced. Our research expands the view of social consequences, revealing that high performers attract more social support and social undermining from peers. Results help to explain why high performers elicited these seemingly paradoxical behaviors from peers and identified when social treatment may be more unfavorable for high performers. We hope this inquiry stimulates further efforts to understand how individual performance shapes social dynamics and informs high performers and managers alike on ways to promote performance and wellbeing at work.

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Appendix

Round Performance Manipulation in Virtual Team Simulation

Team member	Round 1 score	Round 2 score
Experimental condition (high performer)		
<Participant #1 Name>	*10*	*9*
<Participant #2 Name>	*6*	*7*
<Participant #3 Name>	*7*	*5*
<Participant #4 Name>	*7*	*6*
Control condition (average performer)		
<Participant #1 Name>	*6*	*5*
<Participant #2 Name>	*6*	*7*
<Participant #3 Name>	*7*	*5*
<Participant #4 Name>	*7*	*6*