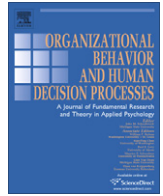




Contents lists available at ScienceDirect

Organizational Behavior and Human Decision Processes

journal homepage: www.elsevier.com/locate/obhdp

Tainted recommendations: The social comparison bias

Stephen M. Garcia^{a,*}, Hyunjin Song^{b,**}, Abraham Tesser^c^a University of Michigan, Department of Psychology, United States^b Yale University, Department of Psychology, United States^c University of Georgia, Department of Psychology, United States

ARTICLE INFO

Article history:

Received 3 June 2007

Accepted 30 June 2010

Available online 7 August 2010

Keywords:

Social comparison
Decision making
Choice behavior

ABSTRACT

The present analysis reveals the *social comparison bias* – a bias that emerges from the social comparison process and taints recommendations. We hypothesize that people who have high standing on a relevant dimension (e.g., *quantity* of publications) begin to protect their social comparison context by making recommendations that prevent others, who might surpass them on the relevant dimension, from entering their comparison context. Studies 1 and 2 instantiate this effect in both hypothetical and real decision situations, showing that people tend not to recommend individuals who surpass them on the relevant dimension on which they have high standing. Finally, Study 3, in a sample of real employees, links the effect to one's concern for protecting self-esteem. Theoretical and organizational implications are discussed.

© 2010 Elsevier Inc. All rights reserved.

Introduction

Seasoned scholars who tend to publish in top tier journals will tend to think that such an achievement is *the* mark of academic distinction. Of course, seasoned scholars who are especially prolific may well think that the total number of publications is *the* mark of academic distinction – whether their work is in top tier outlets or not. One interesting consequence, however, is that people who have high standing on a particular dimension begin to make recommendations that prevent a potential counterpart with similar qualities from entering their comparison context. Thus, for example, high *quality* scholars in a particular field will tend to prefer a job candidate with a higher level of publication *quantity* relative to a candidate with a higher level of publication *quality* than themselves. Drawing upon findings from the social comparison (Festinger, 1954; Garcia, Tor, & Gonzalez, 2006; Pillutla & Ronson, 2005; Tesser, 1988; Tesser, Campbell, & Smith, 1984) and self-esteem literatures (Crocker, 2002; Tesser, 1988), the present analysis introduces the *social comparison bias*: people's tendency to make recommendations that prevent similar others from surpassing them on relevant dimensions on which they have high standing.

In addition to highlighting a new and important phenomenon in organizational life, the theoretical contribution of the present analysis brings social comparison processes to the conflict of interest literature (e.g., Bazerman & Watkins, 2004; Cain, Loewenstein, &

Moore, 2005; Davis & Stark, 2005). Indeed, the *social comparison bias*, which we all arguably recognize, can affect our abilities to offer impartial recommendations, potentially undermining greater organizational goals. At the same time, the present analysis contributes to the social comparison literature by instantiating an important and remarkably surreptitious way that individuals make self-interested recommendations in order to protect their comparison contexts. Moreover, because the comparison context is so often embedded within a group setting, decisions tainted by the *social comparison bias* resemble social dilemmas (e.g., Weber, Koppelman, & Messick, 2004) to the extent that an individual group member might benefit at a cost to the large group.

Shaping the comparison context

The pursuit of status is a common motivation of individuals in the organization, and this pursuit has been widely discussed in the psychological and sociological literatures (De Botton, 2004; Hollander, 1958; Podolny, 2005; Ridgeway, 1982). Whereas broader theories of status might emphasize that high status is conferred on CEOs, the wealthy, or even top tier Wall Street firms (Podolny, 2005), social comparison theory (Festinger, 1954) is principally focused on how individuals self-construe their own standing by comparing themselves to others on a variety of self-relevant dimensions, from popular performance dimensions such as one's salary to more idiosyncratic ones such as one's ability, say, to needlepoint well. Driven by the “unidirectional drive upward” (Festinger, 1954), namely the basic motivation to improve one's standing on any self-relevant dimension, social comparison processes offer a psychological lens toward interpreting the dynamics of status-seeking behaviors.

* Corresponding author. Address: University of Michigan, Department of Psychology, 741 Dennison Hall, Ann Arbor, MI 48109-1220, United States. Fax: +1 734 763 9181.

** Corresponding author.

E-mail addresses: smgarcia@umich.edu (S.M. Garcia), hyunjin.song@yale.edu (H. Song).

The context in which we make social comparisons can greatly affect the types of social comparisons we make, and the more palpable and personal the context, the greater the social comparison concerns (Locke, 2007). Research in the social comparison literature has established that people actively shape comparison contexts by choosing comparison counterparts who do not make themselves look bad on self-relevant dimensions in the social context. For instance, Tesser et al. (1984) found evidence of selectively creating a comparison context by examining the dynamics of performance and friendship choice. They wondered whether people choose friends who performed better or worse than themselves on an important dimension. Indeed, they found that children tended to select as friends classmates who excelled on performance dimensions that were of less importance and who were somewhat inferior on performance dimensions that were important. Thus, individuals shaped the comparison context in their choice of friends.

Advancing this research, Pillutla and Ronson (2005) asked a related question about whether or not people choose to be around people who are better or worse than they in explicitly competitive situations. In a clever study, Pillutla and Ronson (2005) helped answer this question with data collected from the television game show “Weakest Link.” They found that people tend to eliminate others who perform extraordinarily better or worse than themselves and that these dynamics are moderated by the size of the reward pool and the strength of the player. For instance, as the size of the pool increases, people begin to eliminate top performers. Illustrating the *producer-competitor dilemma*, Pillutla and Ronson (2005) show that competitive circumstances can indeed affect strategic choice about whether to keep or cut a particular competitor in an organization. Thus, people are also sensitive about the comparison contexts in which they find themselves, at least in explicitly competitive situations, and they often make choices that shape the comparison context.

Comparison concerns in the proximity to a standard

While research shows that people help create their comparison contexts because of social comparison concerns (e.g., Pillutla & Ronson, 2005; Tesser et al., 1984), recent findings have shown that social comparison concerns on relevant dimensions intensify in the proximity of a standard (Garcia & Tor, 2007; Garcia et al., 2006). Using rankings to vary individuals' proximity to a standard, an acknowledged measure of achievement (e.g., the #1 rank, bottom rank, or a qualitative threshold), researchers showed that commensurately ranked individuals report an *increase* in social comparison concerns and competitive feelings when in the proximity of a standard (i.e., classmates ranked #2 and #3 or ranked #499 and #500 in a class of 500) and a *decrease* when far away from a standard (i.e., classmates ranked #102 and #103). We also note that this pattern also emerges in absence of any payoff or implication thereof. Thus, standards impact social comparison concerns; people are more prone to compare themselves to each other when they are close to a standard.

With these findings, we posit in the present analysis that people are particularly likely to experience an increase in social comparison concerns on relevant dimensions on which they are highly ranked (proximate to a standard). On the other hand, social comparison concerns should diminish when people's performance is average or intermediate (far from a standard). Hence, we can then deduce that concerns about the comparison context are likely to be greater when an individual has high standing on a relevant dimension than when an individual has intermediate standing. As a result, individuals exhibiting the *social comparison bias* should be more likely to protect their comparison context in the former case

by expressing unfavorable recommendations about potentially threatening targets.

Why the comparison context matters: self-esteem

While the literature suggests that people actively shape comparison contexts and that concerns about the comparison context should be greater in the proximity of a standard, an important question is why does the comparison context even matter in the proximity of standard? Put differently, what is the mechanism that underlies the *social comparison bias*? The answer rests in the fact that the relevant dimensions on which people have high standing are tied to people's general sense of self-esteem (Beach & Tesser, 2000; Crocker & Park, 2004; Tesser, 1988; Tesser & Campbell, 1983).

While self-esteem was originally suggested as a general conception of self and identity (for review, see Crocker & Park, 2004), more recent research on contingencies of self-worth suggests that people's self-esteem is contingent upon specific domains such as appearance, academic successes, virtue, and different people can stake their self-worth on different domains (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). People strive for self-validation only in the domain on which their self concept is staked (Crocker & Park, 2004). As a result, a person's self-esteem fluctuates only when people experience threats to the domains on which contingencies of self-worth are staked and not on the domains where self-worth is not at stake (Crocker, Sommers, & Luhtanen, 2002). That said, if there is a level of domain specificity in self-esteem, then what are the domains that a person values?

In most cases, the relevant dimensions naturally emerge as a function of the social context. For instance, in the hiring of employees, compensation, job title, and job responsibilities are perennially relevant dimensions. Still, even among a set of relevant dimensions, some dimensions may be given more or less weight. Research on motivationally reasoning (Kunda, 1987) demonstrates that people differentially assign importance to relevant dimensions according to which relevant dimensions the self has higher standing (e.g., Audia & Brion, 2007). In sum, not every relevant dimension is equally important to one's sense of self, and one may particularly strive to protect one's standing on the dimension on which one's self-esteem is staked (Crocker & Park, 2004).

The social comparison bias

Merging research on comparison contexts, comparison concerns in the proximity of a standard, and the self-esteem underpinnings of the comparison context, the present analysis introduces a phenomenon that can emerge in the recommendation process – the *social comparison bias*. More specifically, we hypothesize that people tend to protect their comparison contexts by making recommendations that prevent others from surpassing them on relevant dimensions on which they have high standing, because such dimensions are especially important to their self-esteem.

Study 1 instantiates the *social comparison bias* by using an experimental decision-making methodology. It focuses on two relevant dimensions so as to manipulate whether individuals have high or intermediate standing. Analogous to Study 1, Study 2 replicates the effect in a real decision situation. Study 3 replicates the effect using a sample of real employees and links this effect to a self-esteem mechanism.

Study 1: recommending whom to hire

Study 1 attempts to instantiate the *social comparison bias*. To accommodate motivated reasoning, Study 1 focuses on two relevant dimensions – number of publications and quality of publica-

tions. In doing so, Study 1 additionally manipulates whether people have high or intermediate on each of these two relevant dimensions. The prediction is that people will protect their comparison context by recommending against candidates who would surpass them on the particular relevant dimension on which they have high standing.

Participants

A total of 29 undergraduates at a Midwestern university were recruited at campus student center to participate in a survey.

Procedure

In a between-subjects design, participants read a scenario entitled “Law School Faculty” that examined dimensions of *quality* (i.e., highest number of prestigious publications) versus *quantity* (i.e., highest number of publications in general): “Imagine you are a full professor at Harvard Law School, and, so far, you have the highest number of publications – 25 – in the Harvard Law Review – more than any other Harvard faculty member [95 in total – more than any other Harvard faculty member]. Although the Law School already has a faculty full of complementary interests and publications, the Law School is thinking about hiring one of the two following professors from different universities: Prof. Jones: 75 publications in total, including 30 in the *Harvard Law Review* – or – Prof. Smith: 100 publications in total, including 20 in the *Harvard Law Review*.” At this point, participants were asked, “Which of these two candidates would you recommend? (Please check: Prof. Jones OR Prof. Smith).”

Results and discussion

As predicted, participants recommended hiring the candidate who had intermediate standing on the dimension on which the self had high standing ($\chi^2 = 4.14, p < .05$). More specifically, when the self had the highest number of *quality* publications in the law school (i.e., 25 Harvard Law Reviews), 69% of the participants recommended hiring the candidate with the highest number of publications in total (Smith). On the other hand, when the self had the highest *quantity* of publications in the law school (i.e., 95 in total), only 31% of the participants preferred hiring the candidate with the highest number of publications in total (Smith). Thus, it appears that people protected their comparison context by expressing recommendations that prevent candidates from surpassing them on dimensions on which they have high standing. Interesting to note, the present results also rule out a “complementarity” explanation – that people want to collaborate with others who complement their own strengths – to the extent that we make explicitly clear that there already exists a full range of complementary interests and expertise across both conditions. Still, some might question whether these results would replicate in a real, non-hypothetical, situation, and so we next instantiate this effect in a real decision situation.

Study 2: a real decision

While Study 1 illustrates the *social comparison bias*, it is nevertheless a hypothetical situation. In Study 2, we experimentally manipulated whether participants had high or intermediate standing on verbal and math skills. We then showed participants the scores of two other team member candidates and asked them which of the two other candidates should join their team to work on an unrelated task. Our prediction was that participants would

recommend the candidate who did not surpass them on the skill dimension on which they had high standing.

Participants

A total of 40 undergraduates from a Midwestern university participated in the study. Initially, the e-mails of 200 students were randomly drawn from the student directory and sent an invitation to sign up for an experiment, with a few invitations returned undelivered. The participation rate was approximately 20%.

Procedure

Participants received a link to the first page of a website that stated on page 1, “Dear Student: If you complete the following 10 min pre-survey and attend a 15 min experimental session at your convenience, we will pay you \$8.00.” Interested participants then proceeded to the survey on page 2 and read, “Please answer the following questions as best as you can, but spend no more than 5 min.” The survey included a variety of easy to difficult verbal and math questions. Clicking onto page 3, participants were told what to expect during the purported in-person “coordination exercise” that they would sign up for: “When you arrive for the experimental session, you will be working with two other students as a team on a competitive coordination task that involves throwing a tennis ball in a variety of ways. If your team does especially well, you can potentially earn a bonus. We will match you with two other students, one of whom is already helping us this term.”

Clicking onto page 4, participants received false feedback about their performance on the survey they completed on page 2: “Based on the preliminary results of your pretest, it appears that you scored in the **82nd [68th]** percentile on the Verbal questions and **68th [82nd]** percentile on the Math questions.” Note that their percentile scores were presented in bold, giving the appearance that their individual percentile scores had been tabulated by the computer between pages 2 and 4. Following this experimental manipulation (e.g., High Verbal-Average Math vs. Average Verbal-High Math), participants were then asked to make a real choice: “For scheduling purposes, one student will be randomly assigned to your team but which one of the students already working with us would you recommend be on your team when you arrive in the lab?” The choices were “JOHN HARDY, Verbal: 95th Percentile, Math: 64th Percentile” or “SCOTT WALKER, Verbal: 65th Percentile, Math: 94th Percentile.”

Clicking onto page 5, participants answered scheduling questions about their preferred day of the week and time of day for the purported “coordination experiment” and provided their e-mail addresses so we could confirm the time. In follow-up emails to the participants, a research assistant then explained that there actually was no “coordination experiment,” but that they could either pick up or receive by mail \$5.00 for completing the 10-min “pre-survey.”

Results and discussion

The results were consistent with the prediction. When participants were told they had scored high on Verbal (82nd percentile) and average on Math (68th percentile), only 26% recommended having “Hardy” (the high verbal, average math candidate) on the team while 74% recommended “Walker” (the average verbal, high math candidate). On the other hand, when participants were told they had scored average on Verbal (68th percentile) and high on Math (82nd percentile), 62% preferred “Hardy” and only 38% “Walker.” The preference reversal was significant ($\chi^2 = 5.1, p < .05$). Thus, using an analogous paradigm as in Study 1, we replicated the effect. When the self was high on math, they favored the candidate high on verbal; when the self was high on verbal, they

avored the candidate high on math. While the present results go beyond Study 1 by instantiating the effect in the context of a real decision situation, we also note that issues related to “complementarity” do not apply to this decision situation. After all, one’s verbal and math scores have no direct implications for a competitive task that “involves throwing a tennis ball in a variety of ways.” Hence, consistent with the *social comparison bias*, participants were protecting their high standing in the context of the experiment (the comparison context) and simply recommended candidates who did not surpass them on the skill dimension on which they had high standing. We next attempt to link this effect to underlying self-esteem concerns.

Study 3: shaping the comparison context and self-esteem

Study 3 seeks to probe for evidence that people express the *social comparison bias* because it ultimately threatens their self-esteem in the comparison context. Study 3 also attempts to illustrate experimentally the effect among real working employees. We predicted that employees who had high standing on salary versus decision-making power would recommend that a new recruit to the organization be given high standing on decision-making power versus salary (and vice versa). Because we have argued that people protect their comparison context in order to protect their self-esteem, we predicted that people would derive more self-esteem from their salary when they were among the highest paid but average in decision-making power and more self-esteem from their decision-making power when they were among the highest in decision-making power but average in salary. To test these predictions, we used a between-subjects design to minimize demand characteristics and avoid social desirability effects.

Participants

A total of 55 full-time employees of a Midwestern university (29 female, 26 male) participated in the study.

Procedure

In a between-subjects design, participants were randomly assigned to one of two recommendation conditions or one of two self-esteem conditions.

Participants probed for their recommendations read, “Imagine that you are working for a company that is making an offer to a new recruit with similar experience and qualifications for a position similar to your own. Imagine further that the company has asked for your recommendation on the degree of salary versus decision-making power to offer the new recruit.

If you were among the (highest paid but average in decision-making power/highest in decision-making power but average paid), what would you recommend for the new recruit?” At this point, participants indicated their preference on a continuous scale (1 = More Decision-Power Than Mine, 7 = More Salary Than Mine).

Participants probed for self-esteem read, “Imagine that you are working for a company that has compensated you in terms of salary and decision-making power. If you were among the (highest paid but average in decision-making power/highest in decision-making power but average paid), which do you think would be more important to your self-esteem? (1 = Decision-Power, 7 = Salary).”

Results and discussion

As predicted, employee participants were more inclined to recommend that the new recruit be compensated more on the dimension on which the employee participants had average, not high,

standing. Participants who were high in salary but average in decision power were significantly more inclined to recommend significantly more decision-power than themselves for the new recruit ($M = 3.15$, $SD = 1.41$) than did participants who were high in decision-power but average in salary ($M = 4.29$, $SD = 1.33$, $F(1, 25) = 4.64$, $p < .05$). The pattern of the self-esteem results was also consistent with the hypothesis that people begin to protect their comparison context in order to protect their self-esteem. Participants who were told they were high in salary but average in decision power believed that salary would be significantly more important to their self-esteem ($M = 4.80$, $SD = 1.37$) than did participants who were told that they were high in decision power but average in salary ($M = 3.46$, $SD = 1.05$, $F(1, 26) = 8.19$, $p < .01$). Thus, these results replicate results found in Studies 1 and 2 using real employees, broaden the effect to circumstances where the individual is already admitted into the group, and implicate a self-esteem based mechanism.

Although the relationship between self-esteem and bias in recommendations is consistent with the hypothesis, we acknowledge that causal inferences are admittedly difficult to draw because self-esteem was neither controlled nor independently manipulated. Nevertheless, taken together, the pattern of these results suggests that people experiencing the *social comparison bias* are concerned with protecting the comparison context when they have high standing on a particular dimension, and this effect parallels the impact salary has on their self-esteem.

General discussion

The present analysis introduces the *social comparison bias*: a social comparison-based bias that taints the recommendation process. Study 1 showed that individuals tended to recommend candidates who did not surpass them on the dimension on which they themselves had high standing. Study 2 replicated the effect in a real decision situation, as people recommended an individual joining their team be one who did not surpass them on the dimension on which they had high standing. Finally, Study 3 instantiated the *social comparison bias* among real employees and linked this effect to concerns about one’s self-esteem.

Theoretical implications

The *social comparison bias*, more generally, contributes to the psychological perspective (e.g., Cain et al., 2005) on the conflict of interest literature, which has largely focused on material, financial, or political forms of self-interest (Davis & Stark, 2005). The present analysis also, more specifically, helps us understand the interplay of social comparison processes and the integrity of recommendations. Whereas power is ultimately at stake in the conventional conflict of interest, one’s psychological well-being is at stake in the *social comparison bias*. Moreover, just as conventional forms of conflicts of interest might undermine the greater well-being of the organization, so too can a *social comparison bias* impact organizations in similar ways.

This impaired recommendation process can also be considered as one of the costs in pursuing self-esteem. Even though self-esteem has been mostly viewed in a positive light (for review, see Crocker & Park, 2004), researchers also propose that pursuing self-validations in domains of self-worth often have costly consequences such as lack of resilience in difficult tasks and sacrifice of others’ needs and feelings (Crocker & Park, 2004). The present research introduces an additional consequence of pursuit of self-esteem, namely, impaired organizational well-being.

Implications for decision making and organizational behavior

The present analysis suggests that people should become more mindful of the social comparison contexts in which they solicit recommendations, especially in organizational and group settings. As in social dilemmas (e.g., Weber et al., 2004), decisions that are tainted by the *social comparison bias* might favor an individual group member, or an individual sub-group for that matter, but ironically hurt the larger group. Moreover, to the extent that high status actors are, in part, defined by superior performance on some meaningful dimension, and to the extent that high status actors have inordinate influence over a decision through the messages they send (Menon & Blount, 2003), these same high status actors might be particularly vulnerable to the *social comparison bias* (e.g., Chen, Blount, & Sanchez-Burks, 2004).

In one reported incident, for example, a Nobel laureate allegedly dissuaded an exceptionally promising faculty member who did similar work from joining his department, warning that if that person were to accept the department's offer he would not be collaborating with that person. One possible explanation for this inhospitable behavior, if true, is the *social comparison bias*; the Nobel laureate might have been concerned that the new talent might eclipse him in past or future achievements. That said, perhaps even at a broader level, the *social comparison bias* might help partially to explain why some top-notch departments or organizational units lose prestige over time, and, indeed, there is already some evidence (Owen-Smith, 2001). Individuals unwittingly fail to reproduce departmental strengths by protecting their personal standing instead of the standing of the broader department.

Conclusion

In sum, the *social comparison bias* is a broad phenomenon that permeates many different aspects of our organizational and social lives. If we have high standing on one dimension, and if someone threatens to surpass us on that dimension, we become more likely to offer recommendations that are tainted by the social comparison process to prevent that person from besting us in our comparison context. While it is natural to shape these contexts to protect our self-esteem, we must also consider the benefits of overcoming the *social comparison bias* in these social and organizational settings. In some cases, rising above the *social comparison bias* might actually lead to a stronger network of social capital and greater opportunity in the long run.

Acknowledgments

We thank Shirli Kopelman, Lou Penner, Georges Potworowski, Oscar Ybarra, and seminar participants at the University of Kent-Canterbury, University of Michigan, and the Conference of the International Association for Conflict Management for helpful comments. Special thanks to Patricia Chen, Joshua Cregger, Cameron

Fisher, Ankit Gupta, Mitch Meyle, Eric Provins, and Stephanie Scapa for research assistance and insightful feedback.

References

- Audia, P. G., & Brion, S. (2007). Reluctant to change: Self-enhancing responses to diverging performance measures. *Organizational Behavior and Human Decision Processes*, 102, 255–269.
- Bazerman, M. H., & Watkins, M. D. (2004). *Predictable surprises: The disasters you should have seen coming, and how to prevent them*. Boston, MA: Harvard Business School Press.
- Beach, S. R., & Tesser, A. (2000). Self-evaluation maintenance and evolution: Some speculative notes. In J. Suls & L. Wheeler (Eds.), *Handbook of social comparison: Theory and research*. New York: Kluwer Academic Press.
- Cain, D. M., Loewenstein, G., & Moore, D. A. (2005). The dirt on coming clean: Perverse effects of disclosing conflicts of interest. *Journal of Legal Studies*, 34, 1–25.
- Chen, Y., Blount, S., & Sanchez-Burks, J. (2004). The role of status and culture in achieving within-group synchrony. In M. A. Neale, E. A. Mannix, & S. Blount (Eds.), *Research on managing groups and teams* (Vol. 6, pp. 111–133). New York: Elsevier.
- Crocker, J. (2002). Contingencies of self-worth: Implications for self-regulation and psychological vulnerability. *Self and Identity*, 1, 143–149.
- Crocker, J., Luhtanen, R., Cooper, M. L., & Bouvrette, S. A. (2003). Contingencies of self-worth in college students: Measurement and theory. *Journal of Personality and Social Psychology*, 85, 894–908.
- Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin*, 130, 392–414.
- Crocker, J., Sommers, S. R., & Luhtanen, R. K. (2002). Hopes dashed and dreams fulfilled: Contingencies of self-worth and admissions to graduate school. *Personality and Social Psychology Bulletin*, 28, 1275–1286.
- Davis, M., & Stark, A. (2005). *Conflict of interest in the professions*. Oxford, England: Oxford University Press.
- De Botton, A. (2004). *Status anxiety*. London, England: Penguin Group.
- Festinger, L. (1954). A theory of social comparison. *Human Relations*, 7, 117–140.
- Garcia, S. M., & Tor, A. (2007). Rankings, standards, and competition: Task vs. scale comparisons. *Organizational Behavior and Human Decision Processes*, 102, 95–108.
- Garcia, S. M., Tor, A., & Gonzalez, R. D. (2006). Ranks and rivals: A theory of competition. *Personality and Social Psychology Bulletin*, 32, 970–982.
- Hollander, E. P. (1958). Conformity, status, and idiosyncratic credit. *Psychological Review*, 65, 117–127.
- Kunda, Z. (1987). Motivated inference: Self-serving generation and evaluation of causal theories. *Journal of Personality and Social Psychology*, 53, 636–647.
- Locke, K. D. (2007). Personalized and generalized comparisons: Causes and consequences of variations in the focus of social comparisons. *Personality and Social Psychology Bulletin*, 33, 213–225.
- Menon, T., & Blount, S. (2003). The messenger bias: A relational model of knowledge valuation. *Research in Organizational Behavior*, 25, 137–186.
- Owen-Smith, J. (2001). Managing laboratory work through skepticism: Processes of evaluation and control. *American Sociological Review*, 66, 427–452.
- Pillutla, M.M., & Ronson, S. (2005). *Do we prefer coworkers who are better or worse than us? Evidence from the 'Weakest Link' game*. Paper presented at the meeting of the Academy of Management, Honolulu, Hawaii.
- Podolny, J. M. (2005). *Status signals: A sociological study of market competition*. Princeton, NJ: Princeton University Press.
- Ridgeway, C. (1982). Status in groups: The importance of motivation. *American Sociological Review*, 47, 76–88.
- Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, 21, pp. 193–355.
- Tesser, A., & Campbell, J. (1983). Self-definition and self-evaluation maintenance. In J. Suls & A. Greenwald (Eds.), *Psychological perspectives on the self* (Vol. 2) (pp. 1–31). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Tesser, A., Campbell, J., & Smith, M. (1984). Friendship choice and performance: Self-evaluation maintenance in children. *Journal of Personality and Social Psychology*, 46, 561–574.
- Weber, M., Kopelman, S., & Messick, D. (2004). A conceptual review of decision making in social dilemmas: Applying the logic of appropriateness. *Personality and Social Psychology Review*, 8, 281–307.