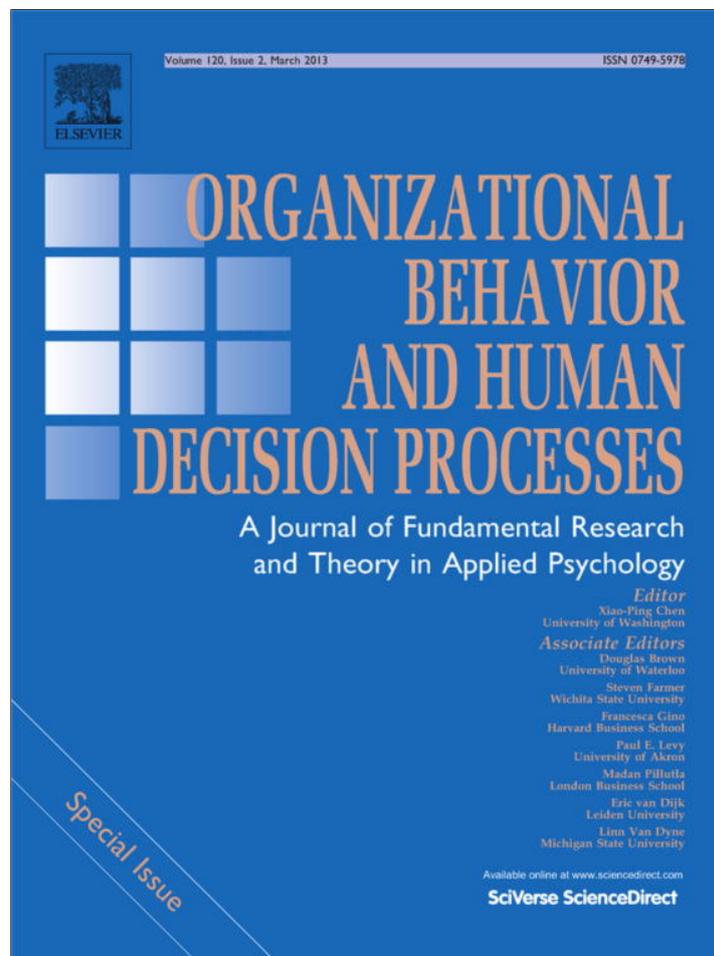


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Organizational Behavior and Human Decision Processes

journal homepage: www.elsevier.com/locate/obhdpOstracism and prosocial behavior: A social dilemma perspective [☆]Daniel Balliet ^{a,c,*}, D. Lance Ferris ^b^a Department of Social and Organizational Psychology, VU University, Van der Boechorststraat 1, 1081 BT Amsterdam, Netherlands^b The Pennsylvania State University, Smeal College of Business, Management and Organization Department, 434 Business Bldg., University Park, PA 16802, United States^c Singapore Management University, School of Social Sciences, 90 Stamford Rd. Level 4, Singapore 178903, Singapore

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ABSTRACT

Prior research has yielded mixed findings regarding the relation of ostracism to prosocial behavior, with studies indicating ostracism leads people to become less prosocial, more prosocial, or that prosocial behavior is unaffected by workplace ostracism. By conceptualizing prosocial behavior at work as a social dilemma, we hypothesized that whether or not individuals reduce prosocial behaviors following ostracism can be understood by how individuals manage the conflict between the immediate temptation to treat others poorly and the long-term benefits of not giving into such temptations. Across three studies – a scenario (Study 1), experimental (Study 2), and field study on employed adults (Study 3) – we find support for the hypothesis that individuals who are less (versus more) oriented towards future outcomes engage in less prosocial behaviors with others who have ostracized them during prior interactions. We discuss both the practical and theoretical implications of these findings.

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Introduction

Over the past decade research has proliferated on the topic of ostracism, or being ignored or excluded by others (Williams, 2001). To date, studies have shown that ostracism occurs across different age groups, cultures, and demographic lines, and occurs regularly within organizations (Ferris, Brown, Berry, & Lian, 2008; Fox & Stallworth, 2005; Williams, 2007). Being the target of ostracism, in turn, is negatively related to numerous organizational and individual outcomes, including job satisfaction, affective commitment, and well-being (Ferris et al., 2008; Penhaligon, Louis, & Restubog, 2009).

While past studies have produced fairly uniform results regarding the negative effects of ostracism, one notable exception lies in the relation of ostracism to prosocial behaviors – behaviors that are intended to benefit another individual, group, or organization (Brief & Motowildo, 1986; Ferris et al., 2011). Although a social exchange theory perspective on organizational prosocial or citizenship behavior (Zellars & Tepper, 2003) suggests individuals should refrain from engaging in prosocial behaviors following ostracism, empirical findings have been mixed: both experimental

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(Romero-Canyas et al., 2010; Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007; Van Beest & Williams, 2006, 2011; Williams & Sommer, 1997) and field (Ferris et al., 2008; Thau, Aquino, & Poor-tvliet, 2007; see also Hitlan, Kelly, Schepman, Schneider, & Zarate, 2006) studies have demonstrated positive, negative, and null effects of ostracism on prosocial behaviors. Organizational research regarding this relation has particularly focused on interpersonal organizational citizenship behaviors (hereafter referred to as OCB),¹ or extra-role behaviors directed towards individuals in the workplace which fall outside of one's job description yet which nevertheless benefit the organization and its employees (Organ, Podsakoff, & MacKenzie, 2006; Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Such behaviors have been shown to impact organizational profitability as well as organizational performance quantity and quality (Podsakoff & MacKenzie, 1997). Thus, whether or not ostracism relates to OCB has both theoretical and practical importance.

We suggest that the answer to this question can be deduced through a different conceptualization of OCB than is typically used. In particular, we subscribe to the notion that OCB, and prosocial behavior more generally, can be understood as a social dilemma whereby an employees' immediate short-term self-interest is in conflict with the long-term collective interest of the organization and the employee. That is, while engaging in OCB or prosocial

¹ Although the OCB term can refer to conscientious or sportsmanlike behavior (e.g., Podsakoff, MacKenzie, Moorman, & Fetter, 1990), in the present paper we use it to specifically refer to interpersonal helping behaviors.

behavior represents a short-term cost to the individual, it has long-term benefits to both the individual and the organization (Joireman, Daniels, George-Falvy, & Kamdar, 2006). This perspective suggests that an employee's future orientation (i.e., concern about future outcomes of behavior) acts as a critical boundary condition for whether or not individuals respond to ostracism with decreased OCB, with individuals oriented towards long-term outcomes being less likely to reduce OCB. Below, we briefly review research on ostracism and OCB, discuss how OCB can be viewed as a social dilemma, and detail the implications this has for understanding the relation between ostracism and OCB. We then report three studies with varied methodologies which examine the hypothesis that either dispositional or state concern for the future reduces the negative effect of ostracism on OCB.

Ostracism and OCB: a social dilemma analysis

Ostracism, defined as being ignored or excluded by another individual or group of individuals (Williams, 2007), occurs in a variety of life domains including organizational contexts (Ferris et al., 2008; Fox & Stallworth, 2005). Work colleagues may not invite their coworker to lunch, they may ignore their coworker's suggestions at meetings, or they may fail to return greetings or salutations to certain coworkers. Drawing from social exchange perspectives on OCB, which represent the dominant paradigm for understanding determinants of OCB (Zellars & Tepper, 2003), one would predict that ostracized individuals should be less likely to engage in OCB following ostracism. In particular, following norms of reciprocity (Gouldner, 1960), when an individual is treated poorly they should be motivated to return such behavior in kind. One way in which to do so is to minimize OCB: given OCB are not formally required by organizations, OCB represents discretionary behaviors ostracized individuals can minimize without running the risk of organizational sanctions.

Yet prior research has produced decidedly mixed findings with regards to this seemingly straightforward prediction. Experimental, survey, and field studies have found that being ostracized can lead individuals to be less likely to engage in a variety of helping behaviors (Hitlan et al., 2006; Thau et al., 2007; Twenge et al., 2007; Van Beest & Williams, 2006, 2011). In contrast, other field studies have found no relation between workplace ostracism and interpersonal helping behavior at work (Ferris et al., 2008), and experimental research has also suggested that ostracism has no impact on the prosocial behavior of males (compared to control conditions where individuals are neither ostracized nor included; Williams & Sommer, 1997).²

One way to reconcile these conflicting findings becomes apparent when OCB is viewed from a social dilemmas perspective, compared to a social exchange perspective. Importantly, people in groups and organizations are interdependent – meaning the behavior of each group member affects the other group members and vice versa (e.g., the amount of effort each group member invests in a group project affects the group output). While both the social dilemmas perspective and social exchange perspective

acknowledge this aspect of OCB, the social dilemmas perspective goes further by detailing the underlying structure of outcomes for OCB. As we will see, doing so can further enhance our understanding of the determinants of OCB (Kelley & Thibaut, 1978; Kelley et al., 2003).

Joireman, Kamdar, Daniels, and Duell (2006) were the first to suggest that OCB may be conceptualized as a social dilemma. Social dilemmas are situations when individual and collective interests conflict (Komorita & Parks, 1994). More specifically, OCBs in particular can be characterized as a certain type of social dilemma, a *social fence*, where individuals have to incur a *short-term* individual cost to receive a *longer-term* collective benefit (Joireman et al., 2006; Messick & McCelland, 1983). For example, an employee may have to decide between spending time completing his or her own work or helping a new colleague get oriented to the job. Although completing one's own work may provide greater immediate benefits to the self (while providing help results in an immediate cost), helping a new colleague may result in better long-term outcomes for the organization and, by extension, for the employee. Importantly, Joireman et al. (2006) found that people do actually perceive OCB as a trade-off between short-term costs to the self and long-term benefits to the organization and the self. They had participants rate 30 different OCB's, most of which were studied in prior research, according to the short-term and long-term costs/benefits of each behavior to the individual and organization. Supporting their predictions, OCB's were viewed as more costly to the self in the short-term, yet more beneficial to the organization in the long-term, suggesting social dilemmas are an appropriate framework for understanding OCB.

A social dilemma perspective on OCB can be generally informative about what features of the person and situation may affect behavior (Kelley et al., 2003; Rusbult & Van Lange, 1996). Specifically, one underlying dimension characterizing the structure of social situations that has important implications for behavior involves the temporal dimension. When people must make a trade-off between a small immediate cost and larger long-term gain, features of the person or situations that induce concern for the future may affect behavior (Joireman et al., 2006; Kelley et al., 2003; Van Lange, Klapwijk, & Van Munster, in press). Thus, conceptualizing OCB as a social dilemma implies temporal orientation plays an important role in determining whether individuals engage in OCB. As we argue below, this feature of OCB may be key for understanding the effects of ostracism on prosocial behavior.

The moderating role of temporal orientation

Temporal orientations are defined as a bias for current decisions to be influenced by a focus on the past, present, or future (Holman & Silver, 1998). Individuals can vary in their temporal orientations with one of these temporal orientations claiming greater cognitive involvement (Holman & Silver, 1998; Shipp, Edwards, & Lambert, 2009; Zimbardo & Boyd, 1999). Given social dilemmas deal with the consideration of long-term outcomes associated with behaviors, an individual's future orientation is particularly relevant to an individual's decision to engage in OCB. In general, future oriented individuals pay more attention to, care more about, and give greater weight to the possible future outcomes of their current behavior when making decisions about how to behave (Joireman, Strathman, & Balliet, 2006; Shipp et al., 2009). For example, in deciding whether to exercise or watch television, highly future oriented individuals may focus more on the distant future outcomes associated with exercise (e.g., good health) and be concerned about how exercise affects progress towards long-term goals (e.g., weight loss) (Ouellette, 2005). However, less future oriented individuals will think less about the long-term outcomes of exercise and may even care less about how exercise affects weight loss. Theo-

² Additionally, some prior experimental research reports an increase in prosocial behavior following ostracism (e.g., Maner, DeWall, Baumeister, & Schaller, 2007). However, most studies on this topic are different from our own research because they have employed designs whereby ostracized participants had an opportunity to behave prosocially towards a person or group who did not previously ostracize them, e.g., interacting with an anonymous other in a prisoners dilemma (Twenge et al., 2007), donating money to charity (Van Beest & Williams, 2006; Van Beest & Williams, 2011), and sharing money with another participant (Maner et al., 2007; for an exception see, Romero-Canyas et al. 2010). As we argue in the paper, an important challenge for understanding ostracism within organizations is that employees continue to be interdependent during subsequent interactions following an act of ostracism and recognizing this future interdependence has important consequences for understanding prosocial behavior towards ostracizers.

rists have suggested that such future orientations can be either a manipulated state or a dispositional variable that can vary across situations and individuals, respectively (Zimbardo & Boyd, 1999). That is, while some individuals may be more likely, on average, to think (and care) about the long-term consequences of their actions, individuals can also be primed by outside factors to temporarily induce a focus on the future as well.

Recent research suggests that a future orientation engenders behaviors which facilitate attaining long-term collective benefits (Joireman et al., 2006; Joireman et al., 2006). Specifically, people who are oriented towards the future consequences of behavior are more likely to engage in prosocial behavior, relative to those less concerned about the future (Insko et al., 1998; Joireman, Van Lange, & Van Vugt, 2004; Joireman et al., 2006; Joireman et al., 2006; Strathman, Gleicher, Boninger, & Edwards, 1994). Moreover, future oriented individuals tend to engage in more pro-relationship behaviors, such as accommodating a partner's rude behavior (Finkel & Campbell, 2001), sacrificing in close relationships (Righetti, Finkenauer, & Finkel, 2012), forgiving another's transgression (Balliet, Li, & Joireman, 2011; Balliet, Li, Macfarlan, & Van Vugt, 2011), and cooperating in dyadic interactions (Van Lange et al., in press). All these findings support the general conclusion that a future orientation may facilitate behaviors that have a delayed collective benefit – even when these same behaviors have an immediate cost to self.

To summarize, extant research suggests that the decision to engage in OCB can be considered a form of social dilemma, whereby individuals must decide whether or not to engage in an individual short-term pain for a collective long-term gain. We believe that this social dilemma is what ostracized employees encounter. In particular, ostracized employees may be tempted to withdraw prosocial behaviors such as OCB: given they have been treated poorly by others, refraining from helping others is a seemingly logical response that justifiably minimizes costs to the individual while maximizing positive emotional outcomes (De Quervain et al., 2004) and presumably serves the individual's short-term self-interest (Rusbult, Verette, Whitney, Slovic, & Lipkus, 1991). However, the dilemma lies in the fact that refraining from helping others actually may serve to harm the individual's self-interest in the long run. For example, withdrawing prosocial behaviors may result in the individual becoming increasingly ostracized as the individual is viewed as a poor team player (LePine & Van Dyne, 2001); moreover, given the individual is an interdependent part of his or her team or organization, refraining from helping others serves to ultimately harm the organization (e.g., lower productivity), and the employee him or herself (e.g., lower chance for promotion and/or reduced bonuses). Thus, given the long-term benefits associated with prosocial behaviors, in the face of ostracism, the better response for all involved would be for the ostracized individual to not allow the ostracism to affect their prosocial behaviors.

This social dilemma framework, in turn, strongly suggests that an individual's future orientation – be it an induced state or an individual trait – will play a large role in determining whether or not an individual will be cognizant of the long-term consequences of reducing his or her prosocial behaviors. In particular, ostracized individuals who retain a future orientation are more likely to be aware of the long-term benefits associated with prosocial behaviors and consequently not react by withdrawing them, resulting in ostracism having little to no effect on prosocial behaviors. Ostracized individuals who are not focused on the future, however, will be unlikely to take such long-term benefits into consideration and hence will be more likely to reduce their prosocial behaviors in the face of ostracism from others. Put differently, this suggests that concern for the future may mitigate the tendency to reduce

prosocial behaviors amongst individuals who have been ostracized. More formally, we hypothesize the following:

Hypothesis. Future orientation will moderate the negative effect of ostracism on prosocial behavior, such that the relation between ostracism and decreased prosocial behavior will be weaker for individuals with a greater future orientation.

Overview of studies

The goal of the following three studies is to test the hypothesis that future orientation – be it individual difference in future orientation or induced future-oriented states – will moderate the relation between ostracism and helping behavior. In our studies we index individual differences in future orientation with a measure of concern for the future consequences of behavior (CFC). CFC measures the extent to which people think about the future consequences of current behavior (Strathman et al., 1994). Although the original development of this construct conceptualized CFC as a trade-off between concern for the present versus the future, subsequent work has found that a two factor model best represents responses to the scale (i.e., present and future orientations; Joireman, Balliet, Sprott, Spangenberg, & Schultz, 2008). This is aligned with more contemporary perspectives that suggest time orientations do not necessarily involve a trade-off between time perspectives (e.g., Shipp et al., 2009; Zimbardo & Boyd, 1999), but that it is possible for individuals to be equally focused on the past, present, and future. In our studies we focused on the future time perspective, since our theorizing concerns long-term temporal orientations, not orientations towards the past or present. With respect to state-induced future orientations, we utilized a manipulation designed to focus individuals on long-term consequences; we describe this manipulation more fully in Study 2.

We tested our hypothesis using multiple different methods and measures. Study 1 uses a scenario study design, measuring dispositional concern for the future using the CFC scale and manipulating ostracism by group project members. We subsequently examined self-reported prosocial behavioral intentions towards those group members. In order to further examine the moderating role of future orientation on prosocial behavior after ostracism, Study 2 uses an experimental design to manipulate ostracism by group members and then prime different orientations (present versus future). We subsequently observed cooperative behavior towards that group in a public goods dilemma – a specific type of social dilemma, which similar to OCBs, is characterized as a social fence. To generalize our results beyond the lab, we conducted a field study where working adult participants completed the CFC scale and perceived ostracism at work, while work peers provided ratings of that individual's OCB in the workplace. Lastly, previous research has found that both age (Ng & Feldman, 2008) and gender (Balliet et al., 2011; Balliet et al., 2011) affect prosocial behavior as well as perceptions of other's prosocial behavior. Therefore, across all three studies we statistically control for gender and age as covariates prior to testing the hypothesized interaction between ostracism and future orientation predicting helping behavior.

Study 1: scenario study

In Study 1 we tested the proposed interaction using a scenario paradigm (Hitlan et al., 2006). Specifically, using a workplace scenario we examined if being ostracized by team members would reduce self-reported intentions of engaging in helping behavior with those group members, relative to not being ostracized by group

members. More importantly, we want to observe if dispositional future orientation would moderate the negative effect of ostracism on helping intentions, such that the negative effect would be stronger for less future oriented individuals.

Participants and procedure

One hundred and eighty-four Singaporean university students participated in the study in exchange for course credit. The average age of participants was 21.6; 65% were female. Participants came to the lab in groups of 16 and were seated at separate cubicles containing a computer. Participants subsequently were asked to read a scenario displayed on the computer, which depicted a situation in which the participant was ostracized (or included) by team members in a hypothetical organization (see below for scenario description). After reading the scenario, participants indicated to what extent they would be likely to engage in helping behavior towards those who had ostracized (or included) them. Finally, participants completed a measure of future orientation.³

Scenario

We adapted an ostracism scenario from Hitlan et al. (2006) which asked participants to imagine they were working as part of a team for an automobile manufacturer. After an initial description of the company and role responsibilities, participants in the *ostracism present* condition read about how the other two team members had recently started to exclude the participant from conversations and ignore the participant's input into team projects. For example, the scenario states "it seems that [your coworkers] talk mostly among themselves, leaving you 'frozen out';" "when working on specific design layouts...[your coworkers] seem to be continuing to ignore you;" and "during meetings and other social interactions, the other two members of your team have been talking to one another but excluding you from their conversations." Participants in the *ostracism absent* condition, on the other hand, read about how the other two team members included the participant in conversations and solicited the participant's input into team projects.

Measures

Helping intentions

We adapted Williams and Anderson's (1991) seven-item measure of interpersonal OCB to assess how likely participants were to engage in helping behaviors directed towards their team members (e.g., "Help your team members when they have been absent") on a 7-point Likert scale (1 = *very unlikely* and 7 = *very likely*).

Future orientation

To measure participants' future orientation, we used the 5-item version of the CFC scale (Joireman et al., 2008; Strathman et al., 1994). Participants rated how characteristic statements (e.g., "I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes") were of them on a 7-point Likert scale (1 = *extremely uncharacteristic* and 7 = *extremely characteristic*).

Results and discussion

The means, standard deviations, alphas, and correlations of the study variables are listed in Table 1. We used hierarchical multiple regression analysis to examine the interaction hypothesis (four

Table 1
Descriptive statistics, alphas, and zero order correlations (Study 1).

	Mean	SD	α	1	2	3	4	5
1. Age	21.6	1.54	–	–				
2. Gender	.65	–	–	–.62*	–			
3. Ostracism	.51	–	–	–.04	.02	–		
4. CFC	5.05	.80	.64	–.20*	–.20*	.01	–	
5. Helping	5.08	1.14	.91	.19*	–.10	–.55*	.12	–

Note: N = 184. CFC = Consideration of Future Consequences.
* p < .05.

participants were excluded due to missing data). In step one, we controlled for gender and age of participants. In step two, we entered the ostracism manipulation (0 = not ostracized and 1 = ostracized) and the mean-centered CFC variable. In step three, we entered their computed interaction term. The results of this regression analysis are listed in Table 2.

In step one, gender and age of participants explained a significant amount of variance in helping intentions ($R^2 = .04$, $F [2, 177] = 3.39$, $p = .036$). In step 2, adding ostracism and CFC to the model explained additional variance in helping intentions ($R^2 \Delta = .20$, $F \Delta [2, 175] = 5.62$, $p < .001$). Ostracism had a significant negative relation with helping intentions ($B = -1.23$, $t [179] = -8.83$, $p < .001$); CFC, however, did not have a significant relation with helping intentions ($B = .12$, $t [179] = 1.35$, $p > .05$). The interaction between CFC and ostracism was significant ($R^2 \Delta = .02$, $F \Delta [1, 174] = 5.62$, $p < .05$).

The interaction is depicted in Fig. 1. Observing the simple slopes, there was a strong negative relation between ostracism and helping intentions at both low ($B = -1.36$, $t [174] = -9.37$, $p < .001$) and high ($B = -1.11$, $t [174] = -7.06$, $p < .001$) levels of CFC. However, as indicated by the significant interaction term and a visual inspection of the interaction, the strength of the relation is stronger at low levels of CFC.

The results of Study 1 thus support our contention that dispositional future orientation buffers the negative impact of ostracism on helping behavior. However, Study 1 is not without its limitations. First, it could be argued that the scenarios themselves were not sufficiently involving enough to mimic the experience of being

Table 2
Multiple regression model predicting helping intentions (Study 1).

Variable	B	t
<i>Step 1</i>		
Intercept	1.57	.89
Age	.16*	2.25
Gender	.08	.36
R^2	.04*	
<i>Step 2</i>		
Intercept	3.71*	2.49
Age	.14*	2.38
Gender	.13	.66
Ostracism	-1.23***	-8.83
CFC	.12	1.35
ΔR^2	.30***	
<i>Step 3</i>		
Intercept	3.33*	2.25
Age	.15*	2.64
Gender	.17	.91
Ostracism	-1.23***	-8.88
CFC	-.48	-1.79
CFC × Ostracism	.41*	2.37
ΔR^2	.02*	
Overall R^2	.36***	

Note: N = 180. CFC = Consideration of Future Consequences.
* p < .05.
*** p < .001.

³ The ostracism manipulation did not impact self-reported ratings of concern for future consequences, $t(181) = -.07$, $p = .94$.

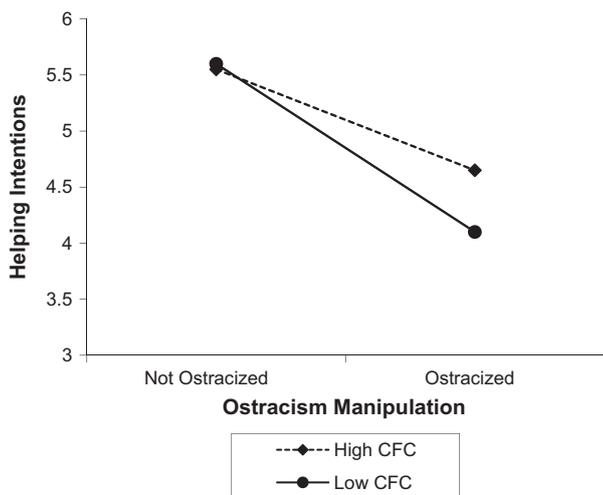


Fig. 1. Study 1: Interaction between ostracism and concern for the future predicting intentions to help group members.

ostracized, in that the participants simply read about, but did not directly experience, ostracism. To a certain extent, such concerns are mitigated by the presence of the interaction: if our scenario was not sufficiently involving, there is no theoretical reason to expect that its effects would differ depending on the participant's endorsement of the CFC measure. Further, it has been noted that one need not directly experience ostracism in order to be adversely affected by it (Williams & Sommer, 1997). However, additional studies directly exposing participants to ostracism would mitigate such concerns. Second, another limitation is that while our study manipulated exposure to ostracism via scenarios, we were not able to manipulate our moderator variable. This raises the possibility of alternate explanations (e.g., that the CFC measure is acting as a proxy for another unmeasured construct). Directly manipulating participants future orientation would help mitigate such concerns.

Study 2: experimental study

Correspondingly, the purpose of Study 2 was to address the limitations of Study 1, as well as conceptually replicate our findings using a different paradigm. In Study 2, we manipulate both being ostracized (versus not ostracized) by group members as well as future orientation (versus a control condition); subsequently we observe contributions to a pooled group resource which serves to benefit the group members that have either ostracized or not ostracized the participant.

Participants and procedure

One hundred and forty Singaporean university students participated in the study in exchange for course credit.⁴ Four participants were excluded for not participating in the ostracism manipulation. Participants came to the lab in groups of eight and were seated at separate cubicles containing a computer. Participants were told they

⁴ Due to a clerical error, information on gender and age were not collected in Study 2. However, we did collect the participant's name and student number, which allowed us to code gender for each participant and estimate the age of some of the participants (birth year was contained in the student number of 67% of our participants). The participants names were coded as male or female by two independent coders, one Chinese Student and a Western Caucasian researcher, which demonstrated acceptable inter-rater reliability ($Kappa = .79$). A subsequent review of the codings resulted in 100% agreement. Based on this information, the average age of participants was 21 and 51% were female. Entering gender as a covariate in our analyses did not affect the outcome.

would, in order, be completing (a) a group decision-making task with 3 other participants in the study, and (b) a group decision-making task with only 2 other participants in the study. Given only 8 individuals were in the study, this meant that 2 participants would not get to complete the second group decision-making task and these two would complete another individual decision-making task instead. Participants were informed that the groups for both the first and the second group decision-making task would be comprised of the same members, except for the one member who would not get to participate in the second task. In order to determine which individuals would not get to participate in the second group decision-making task, participants were told that they would have the opportunity to get to know three other participants via a computer program, and that they would subsequently rank order individuals according to who they most wanted to work with during the second group decision-making task. The participant who received the lowest ratings would not get to participate in the second group decision-making task and would instead complete the individual decision-making task.

In order to allow participants an opportunity to get to know each other, participants were asked to provide some information about themselves via the computer program that would be shared with three other persons participating in the study. Specifically, participants answered questions about themselves such as "What it means to be me," as well as completing a bogus personality measure. Afterwards, participants then received what they believed were the responses from three other random participants who were participating in the study, and were asked to rank who they most (and least) preferred to work with on the second group decision-making task. In fact, everyone read the same information about three other bogus participants that was manufactured by the experimenter; however, this served to lead participants to believe that other participants were reading what they had written and were making similar rankings based on their responses. After making their rankings, participants were given bogus feedback to indicate that they were either ranked first by all group members and would be participating in the second group decision-making task (the *ostracism absent* condition) or ranked last by all group members and would not be participating in the second group decision-making task (the *ostracism present* condition).

Following feedback of their ranking, participants were then randomly assigned to either a control condition or a future orientation condition. In the control condition, participants were asked to take a few minutes to write about what they did *today*. In the future orientation condition participants were asked to write about how what they did today contributes to achieving their *long-term goals*. Afterwards, they were asked to complete four manipulation check items assessing their future orientation (e.g., "I think about the future consequences of my actions"; $\alpha = .75$). Lastly, participants engaged in what they believed to be the first group decision-making task (a public goods dilemma described below), and decided how much money to contribute to a pooled group resource. Participants were subsequently verbally debriefed.

Public goods dilemma

The primary dependent variable is contributions made to a pooled monetary group resource in a public goods dilemma (Komorita & Parks, 1994). For this decision, each participant is endowed with 500 cents and decides how much to contribute to both a group fund and an individual fund. The rules of the public goods dilemma were such that any amount contributed to the group fund is doubled and then equally divide amongst all four group members, regardless of their contribution decisions; any amount placed in the individual fund is paid directly to the individual. This represents a social dilemma, because each individual's maximal

outcome occurs if he/she does not act prosocially but rather puts their 500 cents into the individual fund, while all other group members contribute money to the fund (resulting in an additional payout of 750 to each group member: $1500 \times 2 \div 4$). In such a situation, the individual who puts all their endowment into the individual fund receives 1250 cents ($750 + 500$), while everyone else receives 750 cents. However, if all group members put their endowment into the individual fund, no one receives additional money: no group fund is created or divided among the members. Thus, the most prosocial action is to place all of one's endowment in the group fund, which ideally results in doubling one's money to 1000 cents and similarly helps other group members to double their endowment. Participants confidentially decided how much to allocate to the group fund via the computer. Prior to commencing, participants answered four questions regarding their understanding of how the dilemma worked (all participants answered all questions correctly); following their decision, participants were paid according to the rules outlined above. Participants were led to believe that they would be engaging in these decisions multiple times with their group, creating an interdependent situation rather than simply a one-off decision regarding contributions to the group resource; however, the study was stopped following the first decision; participants were subsequently debriefed, paid, and dismissed.

Results and discussion

We first examined the manipulation check of the long-term orientation manipulation. When conducting this analysis we statistically control for the ostracism manipulation using multiple hierarchical regression, since the future orientation manipulation occurred after the ostracism manipulation. The ostracism manipulation did not statistically relate to the future orientation manipulation check. Supporting the manipulation of future orientation, the future orientation condition was more likely to endorse future oriented thinking, compared to the control condition ($\beta = .21$, $t[134] = -2.51$, $p < .05$).

We next conducted an analysis of covariance examining contributions to the group fund. We added gender as a covariate to the model. Gender did not explain a significant amount of variance in contributions ($p > .10$). There was no main effect of either the ostracism condition or the future orientation condition (both $p > .05$). However, there was a significant interaction between ostracism and future orientation predicting contributions ($F[1, 135] = 5.50$, $p < .05$, $\eta^2 = .04$). The interaction is displayed in Fig. 2. Considering

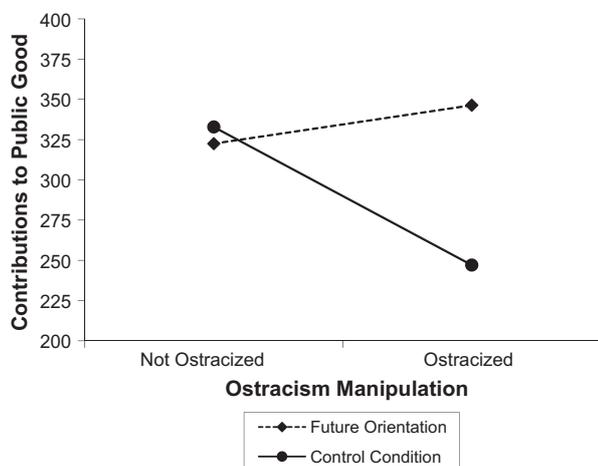


Fig. 2. Study 2: Interaction between ostracism and future orientation manipulation predicting helping behavior.

the simple effects, in the control condition, participants in the ostracism condition ($M = 247$, $SD = 151$) contributed less than the no ostracism condition ($M = 332$, $SD = 135$; $t[65] = -2.44$, $p < .05$, $d = -.60$). However, in the future orientation condition, participants in the ostracism condition ($M = 346$, $SD = 123$) did not differ from the no ostracism condition ($M = 322$, $SD = 170$, $t[67] = .66$, $p > .05$, $d = .16$) in their contributions.

The results of Study 2 both support our hypothesized interaction and extend the results of Study 1 by directly manipulating the moderator variable and directly exposing the participant to ostracism. Moreover, converging results using different paradigms were seen across Studies 1 and 2, supporting the generalizability of the effects of the phenomenon under investigation. Yet despite these strengths, both Study 1 and 2 can be criticized in terms of their external validity in that they provide only a superficial similarity to a work organization. Thus, the question remains whether or not our effects would generalize outside of the carefully controlled lab environment. To address this concern, Study 3 sought to extend our results to working adults in a field setting.

Study 3: field study

Participants and procedure

Participants were Singaporeans recruited by student volunteers who, in exchange for course credit, were asked to identify a full-time working adult (the "focal participant") and a work peer of the focal participant to complete separate online surveys. Using this method, complete data were obtained from 128 pairs of focal participants and their work peers. Participants were working adults employed in a variety of occupations (e.g., superintendent, account manager, secretary) and employed in a variety of industries including sales (17%), financial (15%), education (12%), manufacturing (10%), and engineering (5%). The average focal participant worked 43 h per week, and had been employed with the company for 12 years (average age = 48 years, 48% female).

Students provided the focal participants with a package containing a cover letter and a link to an online survey. The survey assessed the extent to which the focal participant was ostracized in the workplace, as well as their future orientation. A separate, parallel, package was provided by the student to the focal participant's work peer directing them to an online survey where they indicated how often the focal participant engaged in helping behaviors at work. The average work peer worked 42 h per week, and had been employed with the company for about 4 years (average age = 33.62, 51% female).

Measures

Workplace ostracism

Ferris et al.'s (2008) 10-item Workplace Ostracism Scale was used to assess the extent to which focal participants experienced ostracism at work. Participants responded using a seven-item (1 = *Never* and 7 = *Always*) Likert scale to items such as "Others avoided you at work" and "Your greetings have gone unanswered at work." The means, standard deviation, and alpha of each scale in this study are reported in Table 3.

Future orientation

The same CFC measure as in Study 1 was used.

Peer-rated helping behavior

Coleman and Borman's (2000) 4-item measure of interpersonal helping was used. Work peers rated the extent to which the focal participant engaged in a number of helping behaviors (e.g. "My

Table 3
Descriptive statistics, alphas, and zero order correlations (Study 3).

	Mean	SD	α	1	2	3	4	5	6	7
1. Age (T)	37.14	13	–	–						
2. Gender (T)	–	–	–	.07	–					
3. Age (R)	33.62	12	–	.55*	–.04	–				
4. Gender (R)	–	–	–	–.01	.14	.10	–			
5. Ostracism	1.33	.56	.92	–.13	.02	–.03	.08	–		
6. CFC	5.09	.84	.64	.15	–.03	.13	.02	–.23*	–	
7. Helping	5.71	.87	.82	.02	.02	–.10	.07	–.19*	.22*	–

Note: N = 128. CFC = Consideration of Future Consequences; T = Target Participant; R = Peer Rater.
* $p < .05$.

work peer helps others,” “My work peer assists his/her peers with personal or work matters,”) using a seven-point (1 = *strongly disagree* and 7 = *strongly agree*) Likert scale.

Results and discussion

The correlations between all the variables in Study 3 are displayed in Table 3. We used hierarchical multiple regression to test the interaction between workplace ostracism and CFC predicting peer ratings of helping behavior in the workplace. The result of this analysis is displayed in Table 4.

Gender and age of both the target and rater were entered into the first step of the model. In the second step, the mean-centered perceived workplace ostracism scores and CFC ratings were entered. Finally, in the third step, their computed interaction was entered. Adding the interaction in the third step of the model resulted in an additional amount of explained variation in helping behavior ($R^2\Delta = .03$, $F\Delta [1, 120] = 4.06$, $\beta = .35$, $t[120] = 2.02$, $p < .05$). Fig. 3 visually depicts the interaction.

Table 4
Multiple regression model predicting peer ratings of OCB (Study 3).

Variable	B	t
<i>Step 1</i>		
Intercept	5.78***	20.59
A (T)	.007	.96
G (T)	–.004	–.02
A (R)	–.012	–1.57
G (R)	.188	1.19
R^2	.03	
<i>Step 2</i>		
Intercept	5.91***	21.59
A (T)	.002	.35
G (T)	.042	.27
A (R)	–.012	–1.62
G (R)	.214	1.40
Ostracism	–.253	–1.82
CFC	.208*	2.22
ΔR^2	.08**	
<i>Step 3</i>		
Intercept	5.95	21.91
A (T)	.003	.44
G (T)	.038	.25
A (R)	–.013	–1.72
G (R)	.215	1.43
Ostracism	–.028	–.17
CFC	.244*	2.61
CFC \times Ostracism	.353*	2.02
ΔR^2	.03*	
Overall R^2	.13**	

Note: N = 128. A = Age; G = Gender; T = Target Participant; R = Peer Rater; CFC = Consideration of Future Consequences.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

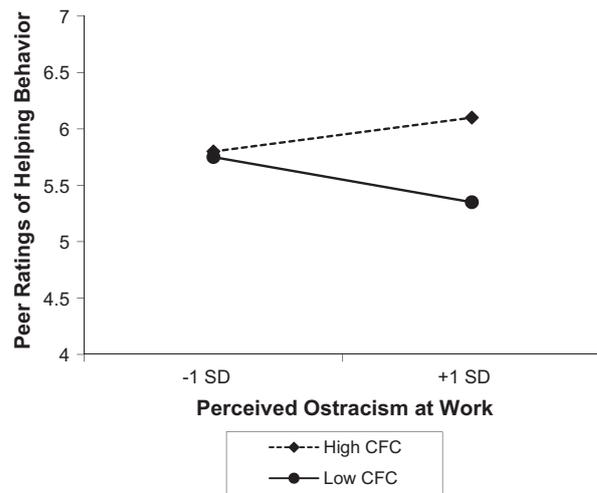


Fig. 3. Study 3: Interaction between workplace ostracism and concern for the future predicting peer ratings of helping behavior.

Examining the simple slopes, there was a negative relation between ostracism and helping behavior at low levels of CFC ($B = -.31$, $t[120] = -2.20$, $p < .05$). However, at high levels of CFC there was no statistically significant relation between perceived ostracism and helping behavior ($B = .19$, $t[120] = .73$, $p > .05$). The findings of Study 3 thus replicate with the findings of Studies 1 and 2, and extend the previous studies through use of an applied sample.

General discussion

Applying a social dilemma perspective, we formulated the prediction that concern for the future should reduce the negative relation between ostracism and helping behavior. Generalizing across three studies employing different methods, we find that both dispositional and state-level concern for the future buffer the negative impact of ostracism on helping behavior. More specifically, in Study 1 being ostracized by group members had a strong negative relation with self-reported intentions to help those group members, but this relation was stronger for individuals with less dispositional concern for the future, relative to those with high concern for the future. Study 2 found more direct causal evidence for this relation. Ostracized individuals who had been primed to be future oriented were less likely to reduce cooperation with group members in a public goods dilemma, compared to ostracized individuals who had not been given such a prime. Lastly, we generalized this finding to the field: Study 3 found that perceived ostracism from work colleagues was negatively related to peer ratings of their helping behavior at work only for individuals with low dispositional concern for the future. Thus, overall we found that a future

orientation can buffer the negative relation between ostracism and prosocial behavior.

These findings make a number of contributions to the literature. First, our studies address the relation of ostracism to prosocial behaviors through application of a theoretically grounded moderating mechanism. In so doing, our study advances our understanding of the consequences of ostracism and, more generally, the antecedents of prosocial behavior. Second, in using a novel social dilemma perspective on OCB, we reconceptualize how OCB should be viewed. Given differing theoretical perspectives offer differing implications for research, our use of a social dilemma perspective not only provides a solution to a long-standing problem, but can help reinvigorate OCB research which has become, according to some accounts, somewhat stalled (Zellars & Tepper, 2003). Third, our use of temporal orientation (specifically, orientation towards future outcomes) in our work both answers calls for, and demonstrates the utility of, incorporating theorizing on time in organizational research (George & Jones, 2000; Shipp et al., 2009) and for the study of social dilemmas (Van Lange & Joireman, 2008). Indeed, only through the incorporation of a social dilemma perspective of OCB and its consequent focus on temporal orientation does the answer to ostracism's inconsistent relation with prosocial behavior become apparent. We outline these contributions below.

Ostracism and prosocial behavior: social dilemmas versus social exchange perspective

In order to reconcile the findings on ostracism's effects on prosocial behavior, our research has, in a sense, started at the end – in particular, arguing that how we conceptualize the dependent variable (prosocial behaviors) will lead to insights regarding its relation with the independent variable (ostracism). Thus, our study is notable for explicitly recognizing the interdependence amongst individuals, and how this interdependence creates a social dilemma for ostracized individuals. Put simply, ostracized employees are, in all likelihood, still going to have to work with the others day in and day out; as such, to engage or not engage in prosocial behaviors represents a type of iterated social dilemma for these individuals. Our research therefore differs from past work which has examined prosocial behaviors towards others who have not previously ostracized them and who they are not interdependent with (e.g., Maner et al., 2007; Twenge et al., 2007). Yet it is recognition of this interdependence between the “ostracizer” and the “ostracizee” that leads to the insight that orientation towards the future will play a critical moderating role.

It is instructive to examine how this social dilemma approach to OCB compares to other theoretical frameworks of OCB. In particular, most prior research has used social exchange theory's emphasis on employee perceptions of reciprocal relations to understand prosocial behaviors at work (Zellars & Tepper, 2003). A social exchange perspective would forward the hypothesis that ostracized individuals should engage in less prosocial behaviors, because ostracized employees were treated poorly and reciprocate by reducing their prosocial behaviors. Yet in our own data, this perspective was supported only for a subset of individuals: ostracism reduced prosocial behaviors only for individuals less concerned about the future. For those individuals who were more concerned about the future, such social exchange principles did not hold.

By comparing those individuals with more or less concern about the future, our results ultimately provide a strong test of, and seemingly a disconfirmation of, social exchange theory (Popper, 1966). The implications of these findings are potentially profound. One view of this is that social exchange theory only operates for those who are not oriented towards the future, and not for those who are oriented towards the future. Although possible, such an explanation is not parsimonious in that it only applies to certain

individuals. The alternate view is that a social dilemma perspective provides a more all-encompassing framework within which to understand why individuals engage in OCB – including individuals who are or are not oriented towards the future. If this view is correct, then it suggests a fundamental reconceptualization of how we view the antecedents of OCB. In particular, increasing OCB in an organization may not be as easy as providing support or removing irritants, but may require employees be in a proper temporal orientation as well. Taken to the extreme, a social dilemma perspective suggests that our extant knowledge of antecedents of OCB is limited to only those without a focus on future outcomes, as those with a focus on future outcomes should simply maintain a high level of OCB regardless of other variables such as Big 5 personality traits (Ilie, Fulmer, Spitzmuller, & Johnson, 2009), prosocial or pro-self motives (Grant & Mayer, 2009), or social comparisons (Spence, Ferris, Brown, & Heller, 2011). Of course, this represents a bold statement, and more research is necessary to back up such claims; still, the present study provides an initial illustration of how the social dilemma perspective may represent a meaningful advance in our understanding of OCB.

Time orientation and workplace behaviors

Aside from the implications our study has for the conceptualization of OCB, our work also addresses recent calls to consider temporal orientations when studying organizational behavior (e.g., Kozlowski & Bell, 2003). Indeed, recent research has begun to answer this call (e.g., Joireman et al., 2006; Mohammed & Nadkarni, 2011; Shipp et al., 2009) and by applying a social dilemma analysis to understanding OCB, we contribute to this literature by addressing how future orientation of employees may affect their prosocial behaviors at work. Yet, it is important to note that temporal orientation can reflect both individual differences or be influenced by features of the situation. In this regard, our results indicating future orientation moderates ostracism's effects on prosocial behaviors are not without irony. In particular, studies have shown that being ostracized actually tends to narrow an individual's attention towards the present and away from future outcomes (Twenge, Catanese, & Baumeister, 2003). In other words, ostracism shifts people away from a long-term focus just when they need it the most. Our results indicate this may be especially problematic when people face the decision to do OCB – situations that involve individuals paying an immediate cost to attain a long-term benefit. With that being said, our results also would indicate that those with dispositional tendencies to focus on the future, or who are primed to think about the future, may be unaffected by such ostracism.

While our research did not consider the role of past or present orientations, research may profitably build on our own work by considering how these orientations affect the relation between ostracism and prosocial behavior. A social exchange perspective may predict that a past orientation may encourage people to ruminate on prosocially being ostracized which would decrease subsequent prosocial behavior, following a norm of reciprocity (Lian, Ferris, & Brown, 2012). The influence of a present orientation, however, is less clear. It may be that a present orientation encourages people to focus on their immediate self interest and the pleasure derived from ‘getting even’ by reducing prosocial behaviors. Indeed, mindfulness, a proxy for present orientation, has been found to relate negatively with helping behaviors directed towards benefiting an organization (Roche & Haar, 2011). However, in that study, a present orientation was expected to promote prosocial behaviors by encouraging people to think about how their present behavior relates to their personal values. According to that perspective, a present orientation may only encourage prosocial behaviors amongst individuals with high organizational

commitment or prosocial values; such predictions have yet to be tested, however, and remain for future research.

Future research may also consider possible mediating mechanisms for understanding the relation between future orientation and prosocial behavior following ostracism. Joireman and colleagues (2006) have outlined two possible mediating mechanisms – concern for one's future consequences and/or awareness of those consequences. For example, future oriented individuals may be more concerned about future consequences, such as maintaining a relationship, and/or simply be more aware that prosocial behavior may be an opportunity to improve their relationship. Another alternative is that a difference in counterfactual thinking may mediate the relation between future orientation and prosocial behavior after being previously ostracized. Prior research finds that future oriented individuals are more likely to form counterfactuals of negative events with the purpose of using the counterfactuals to improve their situation (Boninger, Gleicher, & Strathman, 1994). Lastly, future work may also consider if the effects of future orientation may be explained by broader mechanisms that link back to an ability to self-control. For example, prior work has found that trait self-control and conscientiousness (two similar traits linked to the ability to regulate one's behavior; Wagner, Barnes, Lim, & Ferris, *in press*) are theoretically related to a future orientation and tend to predict prosocial responses towards the transgressions of others (Balliet, 2010; Balliet et al., 2011; Balliet et al., 2011). Understanding if these traits have similar effects may help illuminate if refraining from reducing prosocial behavior towards ostracizers can be explained by broader mechanisms involved with regulating behavior to attain long-term goals, beyond just a concern for the future consequences of behavior.

Another potential direction for future research is to examine moderators of the effects we have observed. In particular, past research has suggested that future-oriented individuals are particularly likely to react positively when they expect to interact with a given set of individuals (e.g., ostracizers) in the future (Joireman et al., 2006). Such a proposition is consistent with our conceptualization of OCB as an interdependent social dilemma. However, the flip side of this is that when one does *not* expect to interact with a given set of ostracizers, one need not necessarily react positively. In other words, this suggests that the interaction found in the present study may itself be moderated (i.e., a three-way interaction) such that our hypothesized two-way interaction only emerges in situations of interdependence.

Practical implications

A key practical implication arising from our results is the need for organizations to have employees focus on long-term outcomes associated with their actions. As seen in our studies, this could be accomplished through recruitment practices (e.g., selection of employees who naturally possess orientations towards future outcomes) or through management practices designed to prime individuals towards a future orientation. Such management practices could include the setting of long-term goals for both the organization and individual employees (e.g., Griffin, Parker, & Mason, 2010), or subtle reminders that individuals are part of an interdependent team. For example, Shantz and Latham (2009) found that a photo of an individual winning a race primed employees to perform at a higher level compared to those employees who received no such prime; it is possible that similar primes (e.g., motivational posters) may be developed and employed to prime employees to focus on teamwork or the long-term consequences associated with their actions.

Strengths and limitations

A main strength of our studies is their use of multiple operationalizations of key variables, multiple methodologies, and

multiple sources for data. In particular, we demonstrate support for our ideas using a hypothetical scenario study, an *in vivo* experimental study, and a multi-source field study with both self- and peer-rated constructs. Although any of these studies may have methodological or measurement limitations on its own, taken as a whole they provide a set of results that both demonstrate the robustness of our findings and rule out alternate interpretations. For example, by using random assignment (Studies 1 and 2) of participants to experimental conditions, the possibility is greatly reduced that other unmeasured individual differences, or other variables not controlled for, may account for our findings given random assignment precludes such explanations. Similarly, by manipulating our moderator variable directly in Study 2, we rule out the possibility that other unmeasured moderators may be responsible for our findings. Finally, while the use of scenarios (Study 1) may lack realism, the use of both an involving experimental paradigm (Study 2) and a field study paradigm (Study 3) argues against our findings being merely an artificial phenomenon.

One potential limitation of our studies is that we only measured concern for the future as our temporal orientation of interest. While this decision is justifiable given theory suggests that it is the most likely aspect of temporal orientations to be a moderator of the relation between ostracism and OCB, concern for the future may work in tandem with other temporal orientations. For example, given that people who are high in concern for the future can also be high in concern for the past or present (Shipp et al., 2009), it may be that people who are high in concern for the future and also low in concern for the present are best able to overcome the social dilemma inherent in OCB. Future research is encouraged to consider this possibility. Another potential concern may lie in the reliability of the CFC scale in Studies 1 and 3. While (as in past research) the scale reliability was somewhat low, our use of a direct manipulation of time orientation in Study 2 (and the conceptual replication of our results across studies) suggests this need not be a concern. However, Joireman and colleagues (*in press*) have published a revised version of this scale which demonstrates improved reliability; future research may consider using this revised version of the CFC scale.

Finally, two aspects of our study designs in Studies 1 and 2 may pose a limitation. First, these studies lacked a manipulation check for the ostracism manipulation. Although ostracism had the hypothesized effect on behavior, and the results generalized to a field study which directly assessed ostracism, this may still be considered a limitation of these studies. Replications of these designs may consider asking participants if they have felt ostracized. Second, in both of these studies, we measured or manipulated future orientation after exposure to the ostracism manipulation. Although the ostracism manipulation did not relate to the measurement of either CFC (Study 1) or the future orientation manipulation check (Study 2), future work may consider counterbalancing these measurements and/or manipulations to avoid any possible order effects.

Concluding remarks

At work, in schools, and in a variety of organization/group contexts people can feel excluded or ostracized by group members, but this does not necessarily mean that these individuals will no longer interact together in that group context. While prior research suggests that people can reduce prosocial behavior after being ostracized, the present research strongly supports the social dilemma analysis of prosocial behavior that concern for the future can buffer the negative impact of being ostracized on prosocial behavior – such that there is less negative impact of ostracism on prosocial behavior when people think about the long-term consequences of their behavior.

References

- Balliet, D. (2010). Conscientiousness and forgivingness: A meta-analysis. *Personality and Individual Differences*, 48, 259–263. <http://dx.doi.org/10.1016/j.paid.2009.10.021>.
- Balliet, D., Li, N. P., & Joireman, J. (2011). Relating trait self-control and forgiveness among prosocials and proselves: A test of compensatory and synergistic models. *Journal of Personality and Social Psychology*, 101, 1090–1109. <http://dx.doi.org/10.1037/a0024967>.
- Balliet, D., Li, N. P., Macfarlan, S., & Van Vugt, M. (2011). Sex differences in cooperation: A meta-analytic review of social dilemmas. *Psychological Bulletin*, 137, 881–909. <http://dx.doi.org/10.1037/a0025354>.
- Boninger, D. S., Gleicher, F., & Strathman, A. (1994). Counterfactual thinking: From what might have been to what may be. *Journal of Personality and Social Psychology*, 67, 297–307. <http://dx.doi.org/10.1037/0022-3514.67.2.297>.
- Brief, A. P., & Motowildo, F. J. (1986). Prosocial organizational behaviors. *Academy of Management Review*, 11, 710–725.
- Coleman, V. I., & Borman, W. C. (2000). Investigating the underlying structure of the citizenship performance domain. *Human Resource Management Review*, 10, 25–44. [http://dx.doi.org/10.1016/S1053-4822\(99\)00037-6](http://dx.doi.org/10.1016/S1053-4822(99)00037-6).
- De Quervain, D. J. F., Fischbacher, U., Treyer, V., Schellhammer, M., Schnyder, U., Buck, A., et al. (2004). The neural basis of altruistic punishment. *Science*, 305, 1254. <http://dx.doi.org/10.1126/science.1100735>.
- Ferris, D. L., Brown, D. J., Berry, J., & Lian, H. (2008). The development and validation of the Workplace Ostracism Scale. *Journal of Applied Psychology*, 93, 1348–1366. <http://dx.doi.org/10.1037/a0012743>.
- Ferris, D. L., Rosen, C. C., Johnson, R. E., Brown, D. J., Risavy, S., & Heller, D. (2011). Approach or avoidance (or both?): Integrating core self-evaluations within an approach/avoidance framework. *Personnel Psychology*, 64, 137–161. <http://dx.doi.org/10.1111/j.1744-6570.2010.01204.x>.
- Finkel, E. J., & Campbell, W. K. (2001). Self-control and accommodation in close relationships: An interdependence analysis. *Journal of Personality and Social Psychology*, 81, 263–277. <http://dx.doi.org/10.1037/0022-3514.81.2.263>.
- Fox, S., & Stallworth, L. E. (2005). Racial/ethnic bullying: Exploring links between bullying and racism in the US workplace. *Journal of Vocational Behavior*, 66, 438–456. <http://dx.doi.org/10.1016/j.jvb.2004.01.002>.
- George, J. M., & Jones, G. R. (2000). The role of time in theory and theory building. *Journal of Management*, 26, 657–684.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25, 161–178. <http://dx.doi.org/10.2307/2092623>.
- Grant, A. M., & Mayer, D. M. (2009). Good soldiers and good actors: Prosocial and impression management motives as interactive predictors of affiliative citizenship behaviors. *Journal of Applied Psychology*, 94, 900–912. <http://dx.doi.org/10.1037/a0013770>.
- Griffin, M. A., Parker, S. K., & Mason, C. M. (2010). Leader vision and the development of adaptive and proactive performance: A longitudinal study. *Journal of Applied Psychology*, 95, 174–182. <http://dx.doi.org/10.1037/a0017263>.
- Hitlan, R. T., Kelly, K. M., Schepman, S., Schneider, K. T., & Zarate, M. A. (2006). Language exclusion and the consequences of perceived ostracism in the workplace. *Group Dynamics: Theory, Research, and Practice*, 10, 56–70. <http://dx.doi.org/10.1037/1089-2699.10.1.56>.
- Holman, E. A., & Silver, R. C. (1998). Getting “stuck” in the past: Temporal orientation and coping with trauma. *Journal of Personality and Social Psychology*, 74, 1146–1163. <http://dx.doi.org/10.1037/0022-3514.74.5.1146>.
- Ilies, R., Fulmer, I. S., Spitzmuller, M., & Johnson, M. D. (2009). Personality and citizenship behavior: The mediating role of job satisfaction. *Journal of Applied Psychology*, 94, 945–959. <http://dx.doi.org/10.1037/a0013329>.
- Insko, C. A., Schopler, J., Pemberton, M. B., Wieselquist, J., McClraith, S. A., Currey, D. P., et al. (1998). Long-term outcome maximization and the reduction of interindividual–intergroup discontinuity. *Journal of Personality and Social Psychology*, 75, 695–710. <http://dx.doi.org/10.1037/0022-3514.75.3.695>.
- Joireman, J., Balliet, D., Sprott, D., Spangenberg, E., & Schultz, J. (2008). Consideration of future consequences, ego depletion, and self-control: Support for distinguishing between CFC-Immediate and CFC-Future sub-scales. *Personality and Individual Differences*, 45, 15–21. <http://dx.doi.org/10.1016/j.paid.2008.02.011>.
- Joireman, J., Daniels, D., George-Falvy, J., & Kamdar, D. (2006). Organizational citizenship behaviors as a function of empathy, consideration of future consequences, and employee time horizon: An initial exploration using an in-basket simulation of OCBs. *Journal of Applied Social Psychology*, 36, 2266–2292. <http://dx.doi.org/10.1111/j.0021-9029.2006.00103.x>.
- Joireman, J., Shaffer, M., Balliet, D., & Strathman, A. (in press). Promotion orientation leads future oriented people to exercise and eat healthy: Evidence from a two-factor consideration of future consequences-14 scale. *Personality and Social Psychology Bulletin*.
- Joireman, J., Kamdar, D., Daniels, D., & Duell, B. (2006). Good citizens to the end? It depends: Empathy and concern with future consequences moderate the impact of a short-term time horizon on organizational citizenship behaviors. *Journal of Applied Psychology*, 91, 1307–1320. <http://dx.doi.org/10.1037/0021-9010.91.6.1307>.
- Joireman, J., Strathman, A., & Balliet, D. (2006). Considering future consequences: An integrative model. In L. J. Sanna & E. C. Chang (Eds.), *Judgments over time: The interplay of thoughts, feelings, and behavior* (pp. 82–99). New York: Oxford University Press. doi: <http://dx.doi.org/10.1093/acprof:oso/9780195177664.003.0006>.
- Joireman, J., Van Lange, P. A. M., & Van Vugt, M. (2004). Who cares about the environmental impact of cars? Those with an eye toward the future. *Environment and Behavior*, 36, 187–206. <http://dx.doi.org/10.1177/0013916503251476>.
- Kelley, H. H., Holmes, J. G., Kerr, N. L., Reis, H. T., Rusbult, C. E., & Van Lange, P. A. M. (2003). *An atlas of interpersonal situations*. Cambridge, UK: Cambridge University Press.
- Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York, NY: Wiley.
- Komorita, S. S., & Parks, C. D. (1994). *Social dilemmas*. Boulder, CO: Westview Press.
- Kozlowski, S. W. J., & Bell, B. S. (2003). Work groups and teams in organizations. In W. C. Borman, D. R. Ilgen, & R. J. Klimoski (Eds.), *Handbook of psychology: Industrial and organizational psychology* (Vol. 12, pp. 333–375). New York: Wiley.
- LePine, J. A., & Van Dyne, L. (2001). Peer responses to low performers: An attributional model of helping in the context of groups. *Academy of Management Review*, 26, 67–84.
- Lian, H., Ferris, D. L., & Brown, D. J. (2012). Does taking the bad with the good make things worse? How abusive supervision and leader–member exchange interact to impact need satisfaction and organizational deviance. *Organizational Behavior and Human Decision Processes*, 117, 41–52. <http://dx.doi.org/10.1016/j.obhdp.2011.10.003>.
- Maner, J. K., DeWall, N., Baumeister, R. F., & Schaller, M. (2007). Does exclusion motivate interpersonal reconnection? Resolving the “porcupine problem”. *Journal of Personality and Social Psychology*, 92, 42–55. <http://dx.doi.org/10.1037/0022-3514.92.1.42>.
- Messick, D. M., & McClelland, C. L. (1983). Social traps and temporal traps. *Personality and Social Psychology Bulletin*, 9, 105–110. <http://dx.doi.org/10.1177/0146167283091015>.
- Mohammed, S., & Nadkarni, S. (2011). Temporal diversity and team performance: The moderating role of team temporal leadership. *Academy of Management Journal*, 3, 489–508. <http://dx.doi.org/10.5465/AMJ.2011.61967991>.
- Ng, T. W. H., & Feldman, D. C. (2008). The relationship of age to 10 dimensions of job performance. *Journal of Applied Psychology*, 93, 392–423. <http://dx.doi.org/10.1037/0021-9010.93.2.392>.
- Organ, D. W., Podsakoff, P. M., & MacKenzie, S. B. (2006). *Organizational citizenship behavior: Its nature, antecedents, and consequences*. London: Sage.
- Ouellette, J. A. (2005). Using images to increase exercise behavior: Prototypes vs. possible selves. *Personality and Social Psychology Bulletin*, 31, 610–620. <http://dx.doi.org/10.1177/0146167204271589>.
- Penhaligon, N. L., Louis, S. L. D., & Restubog, W. R. (2009). Emotional anguish at work: The mediating role of perceived rejection on workgroup mistreatment and affective outcomes. *Journal of Occupational Health Psychology*, 14, 34–45. <http://dx.doi.org/10.1037/a0013288>.
- Podsakoff, P. M., & MacKenzie, S. B. (1997). Impact of organizational citizenship behavior on organizational performance: A review and suggestion for future research. *Human Performance*, 10, 133–151. http://dx.doi.org/10.1207/s15327043hup1002_5.
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly*, 1, 107–142. [http://dx.doi.org/10.1016/1048-9843\(90\)90009-7](http://dx.doi.org/10.1016/1048-9843(90)90009-7).
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26, 513–563. <http://dx.doi.org/10.1177/014920630002600307>.
- Popper, K. R. (1966). *The open society and its enemies*. London: Routledge.
- Righetti, R., Finkenauer, C., & Finkel, E. J. (2012). *Me or you? The role of self-control in facing the daily dilemmas of sacrifice*. VU University, Amsterdam, Netherlands.
- Roche, M., & Haar, J. (2011). *Self-determination theory and inter-role performance: The moderating effects of perceived autonomous support*. Unpublished manuscript, Waikato Institute of Technology, New Zealand.
- Romero-Canyas, R., Downey, G., Reddy, K. S., Rodriguez, S., Cavanaugh, T. J., & Pelayo, R. (2010). Paying to belong: When does rejection trigger ingratiation. *Journal of Personality and Social Psychology*, 99, 802–823. <http://dx.doi.org/10.1037/a0020013>.
- Rusbult, C. E., & Van Lange, P. A. M. (1996). Interdependence processes. In E. T. Higgins & A. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 564–596). New York: Guilford.
- Rusbult, C. E., Verette, J., Whitney, G. A., Slovic, L. F., & Lipkus, I. (1991). Accommodation processes in close relationships: Theory and preliminary evidence. *Journal of Personality and Social Psychology*, 60, 53–78. <http://dx.doi.org/10.1037/0022-3514.60.1.53>.
- Shantz, A., & Latham, G. P. (2009). An exploratory field experiment of the effect of subconscious and conscious goals on employee performance. *Organizational Behavior and Human Decision Processes*, 109, 9–17. <http://dx.doi.org/10.1016/j.obhdp.2009.01.001>.
- Shipp, A. J., Edwards, J. R., & Lambert, L. S. (2009). Conceptualization and measurement of temporal focus: The subjective experience of the past, present, and future. *Organizational Behavior and Human Decision Processes*, 110, 1–22. <http://dx.doi.org/10.1016/j.obhdp.2009.05.001>.
- Spence, J. R., Ferris, D. L., Brown, D. J., & Heller, D. (2011). Understanding daily citizenship behaviors: A social comparison perspective. *Journal of Organizational Behavior*, 32, 547–571. <http://dx.doi.org/10.1002/job.738>.

- Strathman, A., Gleicher, F., Boninger, D. S., & Edwards, C. S. (1994). The consideration of future consequences: Weighing immediate and distant outcomes of behavior. *Journal of Personality and Social Psychology*, 66, 742–752. <http://dx.doi.org/10.1037/0022-3514.66.4.742>.
- Thau, S., Aquino, K., & Poortvliet, P. M. (2007). Self-defeating behaviors in organizations: The relationship between thwarted belonging and interpersonal work behaviors. *Journal of Applied Psychology*, 92, 840–847. <http://dx.doi.org/10.1037/0021-9010.92.3.840>.
- Twenge, J. M., Baumeister, R. F., DeWall, C. N., Ciarocco, N. J., & Bartels, J. M. (2007). Social exclusion decreases prosocial behavior. *Journal of Personality and Social Psychology*, 92, 56–66. <http://dx.doi.org/10.1037/0022-3514.92.1.56>.
- Twenge, J. M., Catenese, K. R., & Baumeister, R. F. (2003). Social exclusion and the deconstructed state: Time perception, meaninglessness, lethargy, lack of emotion, and self-awareness. *Journal of Personality and Social Psychology*, 85, 409–423. <http://dx.doi.org/10.1037/0022-3514.85.3.409>.
- Van Beest, I., & Williams, K. D. (2006). When inclusion costs and ostracism pays, ostracism still hurts. *Journal of Personality and Social Psychology*, 91, 918–928. <http://dx.doi.org/10.1037/0022-3514.91.5.918>.
- Van Beest, I., & Williams, K. D. (2011). “Why hast thou forsaken me?” The effect of thinking about being ostracized by God on well-being and prosocial behavior. *Social Psychological and Personality Science*, 2, 379–386. <http://dx.doi.org/10.1177/1948550610393312>.
- Van Lange, P. A. M., & Joireman, J. A. (2008). How we can promote behavior that serves all of us in the future. *Social Issues and Policy Review*, 2, 127–157. <http://dx.doi.org/10.1111/j.1751-2409.2008.00013.x>.
- Van Lange, P. A. M., Klapwijk, A., & Van Munster, L. M. (in press). How the shadow of the future might promote cooperation. *Group Processes and Intergroup Relations*. doi: <http://dx.doi.org/10.1177/1368430211402102>.
- Wagner, D. T., Barnes, C. M., Lim, V. K. G., & Ferris, D. L. (in press). Lost sleep and cyberloafing: Evidence from the laboratory and a Daylight Saving Time quasi-experiment. *Journal of Applied Psychology*. doi: <http://dx.doi.org/10.1037/a0027557>.
- Williams, K. D. (2001). *Ostracism: The power of silence*. New York: Guilford Publications.
- Williams, K. D. (2007). Ostracism. *Annual Review of Psychology*, 58, 425–452. <http://dx.doi.org/10.1146/annurev.psych.58.110405.085641>.
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17, 601–617. <http://dx.doi.org/10.1177/014920639101700305>.
- Williams, K. D., & Sommer, K. L. (1997). Social ostracism by coworkers: Does rejection lead to loafing or compensation? *Personality and Social Psychology Bulletin*, 23, 693–706. <http://dx.doi.org/10.1177/0146167297237003>.
- Zellars, K. L., & Tepper, B. J. (2003). Beyond social exchange: New directions for organizational citizenship behavior theory and research. In J. Martocchio (Ed.), *Research in personnel and human resources management* (pp. 395–424). Greenwich, CT: JAI Press.
- Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable, individual-differences metric. *Journal of Personality and Social Psychology*, 77, 1271–1288. <http://dx.doi.org/10.1037/0022-3514.77.6.1271>.