# 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

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Organizational citizenship behaviors (OCBs) can be viewed as a social dilemma in which short-term employee sacrifice leads to long-term organizational benefits. With 3 studies, the authors evaluated a set of interrelated hypotheses based on a social dilemma analysis of OCBs. In Study 1, participants rated OCBs as costly to an employee in the short run and beneficial to an organization in the long run, indicating that OCBs were viewed as social dilemmas. In Studies 2 and 3, self-reported (Study 2) and supervisor-rated (Study 3) likelihood of engaging in OCBs was higher among those who adopted a long-term horizon within an organization and those high in empathy (M. H. Davis, 1983). Most important, a short-term time horizon led to a steeper decline in OCBs among employees low in empathy and those concerned with the future consequences of their actions.

*Keywords:* organizational citizenship behavior, social dilemmas, personality and workplace behavior, empathy, concern with future consequences

Many of an employee's most important contributions are those that go above and beyond the call of duty, a class of behaviors commonly known as "*organizational citizenship behaviors*" (OCBs; Organ, 1988). Given their impact on organizations (Bell & Menguc, 2002; Podsakoff & MacKenzie, 1997), understanding factors that impact employees' willingness to engage in OCBs is an important task. In this article, we aim to shed light on OCBs in two ways. First, we highlight the overlap between OCBs and *social dilemmas*, broadly defined as situations in which short-term individual and long-term collective interests are at odds (Komorita & Parks, 1994; Messick & Brewer, 1983). Second, building on a social dilemma analysis of OCBs, we identify a set of three variables that are likely to predict willingness to engage in OCBs. These include an employee's anticipated time horizon within an organization, an employee's dispositional empathy, and an employee's dispositional concern with future consequences (CFC). We assume that employees who anticipate a short-term time horizon within their organization will be less likely to engage in OCBs. Based on this assumption, the fundamental question we

address in the present article is whether a short-term time horizon leads all employees to reduce their level of OCBs or whether employees differ in their response to a short-term time horizon. As explained in more detail later, we predicted that high levels of empathy would minimize the negative impact of a short-term time horizon on OCBs, whereas high levels of concern with future consequences would, counterintuitively, exaggerate the negative impact of a short-term time horizon on OCBs. Next, we review theory and research on OCBs, highlight their overlap with social dilemmas, and outline our two primary interaction hypotheses based on a social dilemma analysis of OCBs.

## Theory and Research on OCBs

The most common theoretical framework for understanding why employees engage in OCBs combines social exchange theory (Blau, 1964) with the norm of reciprocity (Gouldner, 1960). According to this approach, if an employee believes he or she is being treated fairly, the employee develops a positive commitment to the organization (Organ, 1988, 1990) and/or increased trust in the supervisor (Konovsky & Pugh, 1994), which in turn increases the likelihood of OCBs (e.g., Cardona, Lawrence, & Bentler, 2004; Moorman, Blakely, & Niehoff, 1998). More recent frameworks suggest that employees not only respond to issues of fairness but also actively hold implicit sets of beliefs about the employee–organization relationship in the form of *psychological contracts* (Rousseau, 1989) and *covenantal relationships* (Van Dyne, Graham, & Dienesch, 1994). *Psychological contracts* convey an employee's beliefs regarding the nature of the employee–organization exchange (e.g., when my organization treats me

fairly, I should reciprocate). *Covenantal relationships* move beyond the traditional exchange framework by suggesting that employees and organizations make a commitment to a shared set of values and maximization of the well-being of both the employee and the organization. Complementing these perspectives have been studies attempting to identify the motives and dispositions predictive of OCBs. To date, much of this research has focused on a set of three motives, including prosocial values, organizational concern, and impression management (Rioux & Penner, 2001), and two of the Big Five personality dimensions (McCrae & Costa, 1987), including agreeableness and conscientiousness (Borman, Penner, Allen, & Motowidlo, 2001; Organ & Ryan, 1995).

Although much has been learned about the factors that encourage OCBs, recent theory and research suggest the need to address several important questions. Recent theoretical treatments (Bolino, 1999) and empirical reviews (Podsakoff, MacKenzie, Paine, & Bachrach, 2000) suggest that more attention must be paid to understanding how employees perceive OCBs (e.g., do employees perceive OCBs as a social dilemma?). Recent research also suggests the need to learn more about the relationship between personality and OCBs (Organ & Ryan, 1995) and how features of the person and situation interact to predict OCBs (e.g., Van Dyne & Ang, 1998). Later in this article, we advance a social dilemma analysis of OCBs that helps to address both of these issues. First, however, we trace the evolution of the term *OCB*, as the continuing debate over how to best define OCBs helps underscore the need to better understand how employees perceive OCBs.

Organ (1988) originally defined *OCB* as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (p. 4). Similar constructs proposed to capture behavior that goes "above and beyond the call of duty" include prosocial organizational behavior (Brief & Motowidlo, 1986; George, 1990, 1991), extrarole behavior (Van Dyne, Cummings, & Parks, 1995), civic organizational behavior (Graham, 1991), organizational spontaneity (George & Brief, 1992), and contextual performance (Borman & Motowidlo, 1993, 1997). In their review, Podsakoff et al. (2000) concluded that many, if not all, of these constructs fall into one or more of the seven major categories of OCBs including helping behavior, civic virtue, sportsmanship, organizational loyalty, organizational compliance, individual initiative, and self-development.

More recently, the definition of *OCBs* has been expanded because research indicates that OCBs are recognized and rewarded (Allen & Rush, 1998; Werner, 1994), and because features of the person and the situation influence the extent to which OCBs are viewed as in-role or extrarole behaviors (e.g., Coyle-Shapiro, Kessler, & Purcell, 2004; Morrison, 1994; Motowidlo, Borman, & Schmit, 1997). Accordingly, Organ (1997) suggested that *OCB* should be redefined using Borman and Motowidlo's (1993) definition of *contextual performance* as activities that "do not support the technical core itself as much as they support the organizational, social, and psychological environment in which the technical core must function" (p. 73).

## OCBs as Social Dilemmas

As the preceding review suggests, the field continues to confront some fundamental questions about how to best define OCBs.

Nevertheless, there appear to be at least three common themes, suggesting that OCBs are primarily discretionary (though this can vary based on the situation), they benefit others (though perhaps for self-interested reasons), and they are unlikely to be directly rewarded (at least in the short run). These properties suggest that OCBs are likely to pose a conflict between an employee's short-term self-interest and the long-term collective interests of an organization. Assuming they are discretionary and not likely to be directly rewarded, OCBs appear to offer little immediate benefit to the individual employee, but OCBs can contribute to the long-term well-being of an organization and perhaps the employee as well. If true, the decision to engage in OCB can be viewed as a social dilemma.

Social dilemmas are situations in which short-term individual and long-term collective interests are at odds (Komorita & Parks, 1994; Messick & Brewer, 1983). Two broad categories of social dilemmas include *social delayed traps* and *social delayed fences* (Platt, 1973). *Social delayed traps* are situations in which a behavior with immediate positive consequences for the self results in long-term negative consequences for the self and others (e.g., using water during a shortage). *Social delayed fences*, by contrast, are situations that require immediate effort (e.g., hurdling the symbolic "fence") to obtain a long-term collective goal (e.g., reaching greener pastures). Restated, *social delayed fences* are situations in which a behavior with immediate negative consequences for the self results in long-term positive consequences for the self and others (e.g., investing effort to develop a neighborhood park). The dilemma, in each case, is that although it is personally beneficial to pursue the less cooperative alternative, all would be better off in the long run if all had cooperated. Of the two types of dilemmas just outlined, social delayed fences would seem to best capture the dilemma underlying the decision to engage in OCBs: In the short run, OCBs are costly (e.g., working on a committee takes time), but in the long run, OCBs result in positive consequences for the self and others (e.g., program accreditation).

Beyond their intuitively appealing connection, there are two additional reasons to believe that OCBs reflect a social dilemma. First, willingness to engage in OCBs and cooperation in social dilemmas can both be understood in the context of social exchange theory (Blau, 1964). As noted earlier, OCBs have long been understood as a form of generalized social exchange. Moreover, Yamagishi and Cook (1993) argued that any system involving generalized social exchange can be viewed as a social dilemma, because such systems offer the opportunity to free ride on the contributions of others, a classic feature of social dilemmas (Olson, 1965). Although Yamagishi and Cook were not directly interested in OCBs, their reasoning provides general support for the argument that OCBs reflect a social dilemma.

Also relevant to note is the fact that OCBs and cooperation in social dilemmas are predicted by similar types of factors. For example, OCBs are more likely among individuals high in agreeableness and conscientiousness (cf. Borman et al., 2001; Organ & Ryan, 1995; Podsakoff et al., 2000). Similarly, cooperation in social dilemmas is more likely among individuals concerned with the well-being of others (e.g., Kuhlman & Marshello, 1975; Parks, 1994; Roch & Samuelson, 1997; Van Lange & Kuhlman, 1994) and those concerned with future consequences of their actions (e.g., Insko et al., 1998; Joireman, Van Lange, & Van Vugt, 2004). As another example, OCBs are more likely when groups are highly

cohesive and employees receive feedback on relevant tasks (cf. Borman et al., 2001; Organ & Ryan, 1995; Podsakoff et al., 2000). Similarly, cooperation in social dilemmas is also more likely when individuals strongly identify with their group (e.g., Brewer & Kramer, 1986; De Cremer & Van Vugt, 1999; Van Vugt & De Cremer, 1999), when individual decisions can be identified (De Cremer, Snyder, & Dewitte, 2001), and when people believe their contributions have a meaningful impact on the group outcome (Kerr, 1983; Kerr & Bruun, 1983).

In sum, theory and research suggest that OCBs reflect a social dilemma. These parallels notwithstanding, it is useful to verify this basic assumption before proceeding to test social dilemma based predictions. Although researchers may generally agree that a certain decision reflects a social dilemma, decision makers do not always perceive the decision in the same way (e.g., Plous, 1993). Moreover, these differing perceptions may hold important implications for the validity of a social dilemma analysis of the decision in question. As such, our first goal was to test the following hypothesis:

> *Hypothesis 1:* OCBs will be viewed as a social delayed fence involving short-term costs to the employee and long-term benefits to the employee's coworkers and organization.

## Social and Temporal Concerns Following From a Social Dilemma Analysis of OCBs

Our second and more central goal was to determine whether variables relevant to decision making in social dilemmas would predict people's tendency to engage in OCBs. Assuming that OCBs reflect a social delayed fence suggests that when employees are deciding whether to engage in OCBs, they are faced with at least two underlying conflicts of interest including a *social conflict* (between individual and collective interests) and a *temporal conflict* (between short-term and long-term interests). On the basis of this assumption, OCBs should be more likely among individuals who attach greater importance to advancing collective rather than individual interests (a *social concern*) and those who attach greater importance to the delayed rather than the immediate consequences of their actions (a *temporal concern*).

## Selection of Variables to Model Social and Temporal Concerns

In theory, the social and temporal concerns just outlined could vary as a function of individual differences and/or features of the situation. Responding to calls for an interactionist approach to OCBs (Colbert, Mount, Harter, Witt, & Barrick, 2004; Van Dyne & Ang, 1998), we focused on how two individual-differences variables, empathy (a social concern) and CFC (a temporal concern), interact with one feature of the situation, an employee's anticipated time horizon within his or her organization (another temporal concern), to impact OCBs. We focused on this combination of variables because of their theoretical relevance for the social and temporal conflicts underlying social dilemmas and because of their grounding in the literatures on OCBs and social dilemmas. Moreover, we focused on the interaction between features of the situation (employee time horizon) and features of the person (empathy and CFC), because of their practical relevance.

As we explain later, it seems reasonable to assume that employees who anticipate a short-term time horizon within their organization will be less likely to engage in OCBs. If true, this raises an important question, namely, does the prospect of a short-term time horizon lead all employees to reduce their level of OCBs, or do employees differ in their response to a short-term horizon? And if employees differ, what factors minimize, and what factors magnify, the negative impact of a short-term time horizon on OCBs? Clearly, these questions have important practical implications. For example, if managers assume that an employee's anticipated time horizon is largely outside of their control, selecting employees who are relatively immune to the negative impacts of a short-term time horizon becomes important. Next, we outline our predictions in more detail, focusing in particular on the interaction between an employee's anticipated time horizon and the two personality constructs of interest.

### Anticipated Time Horizon and OCBs

In general, we hypothesized that employees who anticipate a short-term time horizon within their organization would be less likely to engage in OCBs. This follows from our underlying assumption that OCBs are costly for an employee in the short run but beneficial to the self and others in the long run. As such, a short-term time horizon may not provide enough time for an employee to realize the long-term benefits of OCBs (for self and/or others). In fact, this hypothesis has received some support in the OCB and social dilemma literatures. Van Dyne and Ang (1998), for example, recently demonstrated that contingent (short-term) employees with outside job prospects were less likely than regular (long-term) employees to engage in OCBs. In a similar vein, people led to anticipate a long-term future within an organization (i.e., via low interfirm mobility) achieve better joint outcomes in integrative negotiations (Mannix, Tinsley, & Bazerman, 1995) and are less likely to deplete organizational resources (Mannix, 1991; Mannix & Loewenstein, 1993). Finally, people led to anticipate future interactions with their partners show higher levels of cooperation in social dilemmas (Axelrod, 1984; Murnighan & Roth, 1983). In sum, theory and research suggest that when employees anticipate a short-term time horizon within their organizations, they will be less likely to engage in OCBs.

### The Moderating Role of Dispositional Empathy and CFC

Although the aforementioned question is important, the more interesting question in our view is whether a short-term time horizon leads all employees to reduce their level of OCBs or whether employees differ in their response to a short-term horizon. Drawing on a social dilemma analysis of OCBs, we believe the answer to this question is likely to depend on the extent to which employees are concerned with the well-being of others (i.e., empathy) and the extent to which employees base their decisions on the immediate consequences of their actions versus the future consequences of their actions (i.e., CFC). Intuitively, it would seem desirable for an employee to possess high levels of empathy and CFC. Of interest, however, past theory and research suggest that although high levels of empathy are likely to minimize the negative impact of a short-term horizon on OCBs, high levels of

CFC may, counterintuitively, magnify the negative impact of a short-term horizon on OCBs.

*Defining empathy and CFC.* Before explaining the logic of these predictions, it is worth briefly defining *empathy* and *CFC* and commenting on why we chose to focus on these particular variables. Dispositional *empathy* reflects the extent to which an individual can take another person's perspective (perspective taking) and has warm, tender feelings of concern for another's well-being (empathic concern; Davis, 1983).

Dispositional *CFC* has been defined as "the extent to which people consider the potential distant outcomes of their current behaviors and the extent to which they are influenced by these potential outcomes" (Strathman Gleicher, Boninger, & Edwards, 1994, p. 743). Individuals low in CFC attach a high degree of importance to the immediate consequences of behavior, and very little importance to the delayed consequences of behavior. Individuals high in CFC attach a high degree of importance to the future consequences of behavior, *and very little importance to the immediate consequences of behavior.* We highlighted the latter because, as we show later, the relative lack of concern with immediate consequences of behavior among "high CFCs" can lead to a counterintuitive pattern of results. More specifically, several studies suggest that high levels of CFC are not always beneficial. For example, in one study (Joireman, Anderson, & Strathman, 2003), high CFCs showed lower levels of aggression than "low CFCs" when participants thought they would interact with the target of their aggression in the future. However, when participants thought they would have only an immediate but no future interaction with the target, high CFCs were more aggressive than those low in CFC. At first glance, these results appear counterintuitive. However, these results are consistent with the theory underlying the CFC construct, which assumes that high CFCs are mainly concerned with the future rather than the immediate consequences of their actions. Moreover, similar patterns have been observed in other domains (e.g., proenvironmental attitudes; Strathman et al., 1994), suggesting that this counterintuitive result is a reliable finding.

*What about the Big Five?* Given their link with OCBs (Borman et al., 2001; Organ & Ryan, 1995), readers might wonder why we did not focus on agreeableness and conscientiousness. In short, we felt that focusing on the narrower but related traits of empathy and CFC was desirable, as empathy and CFC more clearly reflect the social and temporal concerns we wished to investigate.[1] A focus on narrower traits also seemed advisable in light of recent research demonstrating that narrower aspects of agreeableness (empathy) and conscientiousness (achievement) appear to be better predictors of OCBs (Organ & McFall, 2004) and constructive responses to workplace injustices (Reisert & Conte, 2004) than the more global dimensions of agreeableness and conscientiousness. At the same time, given their wide recognition, future research incorporating agreeableness and conscientiousness within the current framework could clearly serve as a useful complement to our focus on empathy and CFC.

## Anticipated Time Horizon × Empathy

We begin our primary hypothesis development by considering the main and interactive effects of empathy. In the context of social dilemmas, empathy should encourage OCBs. Indeed, past research

has shown that empathy predicts higher levels of cooperation in social dilemmas (e.g., Batson & Moran, 1999) and higher levels of OCBs (Borman et al., 2001; McNeely & Meglino, 1994; Rioux & Penner, 2001; Spector & Fox, 2002). As such, we assume that empathy will be positively related to OCBs. Albeit important, of greater interest is the possibility that empathy will moderate the impact of an employee's anticipated time horizon on OCBs.

If we assume that an individual who is high in empathy engages in OCBs primarily out of a desire to help others, this individual is likely to engage in OCBs, regardless of how long he or she plans to stay in the organization, because leaving (or staying) is irrelevant to his or her goal to help others for the sake of helping them. By contrast, an individual low in empathy may engage in OCBs for primarily self-interested reasons and may thus base his or her decision to engage in OCBs on whether he or she plans to stay or leave. If the individual plans to stay, OCBs could yield some benefits for the self in the long run, but if the individual plans to leave, there should be little incentive for this employee to engage in OCBs. If true, a short-term time horizon should have an adverse impact on the level of OCBs mainly among employees who are low in empathy, as illustrated in Figure 1A. On the basis of this reasoning, we forwarded the following hypothesis:
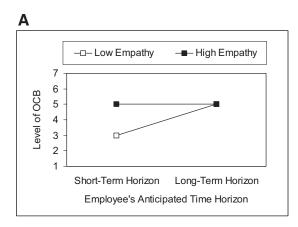
> *Hypothesis 2:* Empathy will moderate the impact of anticipated time horizon on OCBs, such that a short-term horizon will lead to a decline in OCBs only among those low in empathy.

## Anticipated Time Horizon × CFC

We now consider the main and interactive effects of CFC. In the context of social dilemmas, CFC with respect to one's actions should encourage OCBs. Indeed, past research has shown that cooperation in social dilemmas is higher among those high in CFC (e.g., Insko et al., 1998; Joireman et al., 2004), and OCBs are more likely among those high in the related Big Five dimension of conscientiousness (Borman et al., 2001). As such, we assume that CFC will be positively related to OCBs. Of greater interest, however, is the possibility that CFC will moderate the impact of an employee's anticipated time horizon on OCBs.

If we assume that an individual high in CFC engages in OCBs because OCBs can result in long-term benefits, an individual high in CFC should be more likely to engage in OCBs when he or she sees a future for himself or herself within an organization. This would allow time to enjoy the personal benefits of OCBs or observe the benefits that others derive from the OCB. If, on the other hand, an employee high in CFC has landed another job and intends to leave soon, OCBs would seem to lose some of their "appeal," as some of the benefits of OCBs, for the self and/or others, are likely to be delayed. If true, employees high in CFC should be more likely to engage in OCBs when they see a future

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[1] Readers will likely see a connection between agreeableness and empathy but may not see a parallel between conscientiousness and CFC. Although conscientiousness does not contain a "time orientation" subfactor, many of the subfactors (e.g., impulse control and discipline) are closely tied to the idea of delaying gratification, and past research has shown positive relationships between conscientiousness, CFC, and delay of gratification (Strathman et al., 1994).
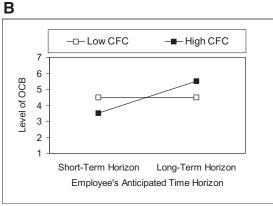
**A**



**B**

*Figure 1.* Predicted (A) Anticipated Time Horizon × Empathy and (B) Anticipated Time Horizon × Concern With Future Consequences (CFC) interactions. OCB = organizational citizenship behavior.

for themselves in an organization. By contrast, individuals low in CFC should engage in OCBs in an effort to maximize mainly immediate interests. As such, a short-term time horizon may have less of an impact on an individual low in CFC, as the more immediate benefits of OCBs might still be available, despite the fact that the employee is about to leave his or her job. If true, a short-term time horizon should have an adverse impact on OCBs mainly among employees high in CFC, as illustrated in Figure 1B. On the basis of this reasoning, we advanced the following hypothesis:

*Hypothesis 3:* CFC will moderate the impact of anticipated time horizon on OCBs, such that a short-term time horizon will lead to a decline in OCBs only among those high in CFC.[2]

## Overview of Studies

To test our hypotheses, we asked employees to rate the short-term and long-term costs–benefits of OCBs (Study 1) and indicate their likelihood of engaging in OCBs (Study 2) within either a short-term or a long-term time horizon condition. In Study 3, employees self-reported their anticipated time horizon and supervisors rated employees' likelihood of OCBs.

## Study 1: OCBs as Social Delayed Fences

### Method

*Participants.* Participants, 200 engineers (182 men and 16 women, 2 unidentified) from an oil refinery in a large multinational conglomerate, completed surveys in groups of 6 and were assured their responses would not be disclosed to their employer, supervisor, or coworkers. Upon completion, participants received a high-quality pen in appreciation for their time.

*Procedure.* To assess whether employees viewed OCBs as a social delayed fence, we asked participants to rate how costly or beneficial 30 OCB-related behaviors would be for an employee in the short term and long term and for an organization in the short term and long term (1 = *very costly*, 7 = *very beneficial*). The majority of the items were drawn from Podsakoff, MacKenzie, Moorman, and Fetter's (1990) 24-item measure of OCB, which includes scales assessing altruism, civic virtue, conscientiousness, courtesy, and sportsmanship. The remaining 6 items were drawn from Van Dyne and LePine's (1998) scales for voice. More detail on these scales can be found in the Study 2 section. To simplify our analysis, we averaged over the 30 items to form an overall OCB scale for each of the four types of cost–benefit ratings (short-term employee, long-term employee, short-term organization, long-term organization).

### Results and Discussion

With respect to the social fence analysis, a one-way repeated measures analysis of variance (ANOVA) on the four cost–benefit ratings revealed a significant effect for type of benefit ($p < .0001$). An examination of the means revealed support for our underlying assumption that OCBs reflect a social delayed fence (short-term employee, $M = 2.79$, $SD = 0.30$; long-term employee, $M = 5.11$, $SD = 0.22$; short-term organization, $M = 5.11$, $SD = 0.24$; and long-term organization, $M = 5.36$, $SD = 0.25$). Recall that these cost–benefit ratings were made on a 7-point scale. Values below the scale midpoint of 4 were labeled *very costly* (1), *costly* (2), and *somewhat costly* (3), whereas values above the scale midpoint of 4 were labeled "*somewhat beneficial*" (5), *beneficial* (6), and *very beneficial* (7). Thus, if the mean for short-term cost–benefit to self falls significantly below 4, it indicates that OCBs were seen as significantly costly to the employee in the short term. By contrast, means falling significantly above the scale midpoint of 4 indicate that the type of outcome, say long-term cost–benefit to self, was seen as significantly beneficial to the employee in the long term. With this in mind, in order for OCBs to be classified as a social

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[2] Our primary goal in the present article is to evaluate how empathy and CFC moderate the impact of a short-term time horizon on OCBs. As such, our focus in the interaction hypotheses is on how a short-term time horizon impacts OCBs at high and low levels of empathy and CFC. Also implied in the interaction hypotheses are differences between those low vs. high in empathy and those low vs. high in CFC under a short-term and a long-term time horizon. Hypothesis 2, for example, suggests that employees low in empathy will be less likely than those high in empathy to engage in OCBs under a short-term time horizon, but equally likely under a long-term time horizon. Hypothesis 3 suggests that employees low in CFC will be more likely than those high in CFC to engage in OCBs under a short-term time horizon, but less likely than high CFCs to engage in OCBs under a long-term time horizon. This is why the predicted interaction between empathy and time horizon (see Figure 1A) is not a cross-over interaction, whereas the interaction between CFC and time horizon (see Figure 1B) is a cross-over interaction.

delayed fence, three conditions must be met: (a) OCBs should involve short-term costs to the employee (i.e., the short-term employee mean should fall significantly below the scale midpoint of 4), (b) OCBs should involve long-term benefits to the organization (i.e., the long-term organizational mean should fall significantly above the scale midpoint of 4), and (c) the long-term benefits to the organization should exceed the long-term benefits to the employee.

Analysis of the means revealed support for each of these conditions. First, single-sample $t$ tests revealed that each of the four means reported earlier differed significantly from the scale midpoint of 4 ($p$s < .0001). Thus, employees believed that OCBs would be costly to the employee in the short term and beneficial for the organization in the long term. In addition, paired-samples $t$ tests indicated that employees believed that the long-term benefits to the organization exceed the long-term benefits to the employee ($p$ < .001). In sum, these results suggest that employees did view OCBs as a social delayed fence involving short-term costs to the employee and long-term benefits for the organization. Albeit useful, our primary goal was to examine whether individual differences in empathy and CFC would moderate the impact of an employee's anticipated time horizon on willingness to engage in OCBs.[3]

## Studies 2 and 3: Empathy and CFC as Moderators of the Impact of a Short-Term Time Horizon on OCBs

### Method

*Participants and procedure.* Participants in Studies 2 ($N$ = 198; 182 men and 16 women) and 3 ($N$ = 245; 228 men and 17 women) consisted of engineers from a different division within the same company as in Study 1. As before, participants completed surveys in groups of 6 and were assured that their individual responses would remain strictly confidential.

*Individual-differences measures.* Participants in both studies completed Davis's (1983) measure of empathy and Strathman et al.'s (1994) CFC scale. Davis's measure contains subscales for empathic concern and perspective taking, respectively.[4] Each of these scales contains seven items that participants rated on a scale ranging from 1 (*never describes me*) to 5 (*always describes me*). As an example, two empathic concern items read "I often have tender concerned feelings for people less fortunate than me" and "I would describe myself as a pretty soft-hearted person." Two perspective taking items read "I try to look at everybody's side of a disagreement before I make a decision" and "I sometimes try to understand my friends better by imagining how things look from their perspective." We combined the two subscales to create a single empathy scale that proved to be highly reliable in each study ($\alpha$s = .86 and .91, respectively).

Strathman et al.'s (1994) CFC scale contains 12 statements reflecting an individual's CFC with respect to his or her behavior rated from 1 (*extremely uncharacteristic*) to 7 (*extremely characteristic*). Three CFC items read "I consider how things might be in the future, and try to influence those things with my day to day behavior," "Often I engage in a particular behavior in order to achieve outcomes that may not result for many years," and "I only act to satisfy immediate concerns, figuring the future will take care of itself" (recoded). The CFC scale was highly reliable in each study ($\alpha$s = .95 and .92, respectively).

*OCB and voice scales.* As in Study 1, we measured OCB using Podsakoff et al.'s (1990) 24-item measure of OCB. The OCB scale is based on five dimensions: altruism, civic virtue, conscientiousness, courtesy, and sportsmanship. Sample items include "Helps others who have been absent" (altruism); "Keeps abreast of changes in the organization" (civic virtue); "Does not take extra breaks" (conscientiousness); "Does not abuse the rights of others" (courtesy); and "Always finds fault with what the organization is doing" (sportsmanship items reverse coded). Each scale, except the 4-item civic virtue scale, contained 5 items.[5]

We complemented Podsakoff et al.'s (1990) scales with six items from Van Dyne and LePine's (1998) scales for voice (e.g., "This particular coworker speaks up and encourages others in this group to get involved in issues that affect the group"). We included measures of *voice* (defined as a constructive change-oriented communication intended to benefit or improve the situation in one's work group) because recent research suggests that voice is a vital but underrepresented form of contextual performance (e.g., LePine & Van Dyne, 2001; Van Dyne & LePine, 1998), and because the inclusion of voice in contextual performance research has been highly recommended (LePine & Van Dyne, 2001).

*Study 2 details.* In Study 2, participants engaged in a two-phase study. During Phase 1, participants completed the individual-differences measures just described. During Phase 2, conducted approximately 2½ weeks later, participants completed the OCB measures described in Study 1 by rating on a scale ranging from 1 (*very unlikely*) to 7 (*very likely*) how likely they would be to engage in the 30 work-related behaviors just described (reliabilities for the OCB scales ranged from .71 to .82). Before making their ratings, participants were randomly assigned to one of two anticipated time horizon conditions. Participants in the short-term condition were asked to imagine that although they enjoyed their job, they would be leaving the company in 3 months to take another job because of family factors. Participants in the long-term condition were told nothing about their length of stay in the organization.[6] Study 2 was run in two phases in an effort to reduce the likelihood that completing the personality measures would simply serve to activate or make accessible the personality construct, which would, in turn, influence participants' OCB judgments (Feldman & Lynch, 1988; Sanderlands & Larson, 1985).

*Study 3 details.* In Study 3, after completing the empathy and CFC scales, participants responded to five questions designed to assess their anticipated time horizon within their organization. Specifically, participants first indicated how long they planned to stay with the company, work with their current supervisor, and work within their current division, using a scale ranging from 1 (*less than a year*) to 7 (*more than 7 years*). Participants also rated the likelihood that they would find a job and have a job lined up if they left the company in the near future, both rated on a scale ranging from 1 (*very likely*) to 7 (*very unlikely*). Responses to the five time horizon questions were averaged, with high ratings reflecting a longer term horizon ($\alpha$ = .89).

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[3] Readers interested in a more detailed summary of the results may contact Jeff Joireman.

[4] Davis's (1983) fantasy and personal distress scales were not of interest in this study. In Study 3, the empathy response scale ranged from 1 (*never describes me*) to 7 (*always describes me*).

[5] To improve comprehension, we reworded two sportsmanship items we felt might be misinterpreted (i.e., "Tends to make mountains out of molehills," and "Is a classic 'squeaky wheel' that always needs greasing," were changed to "Tends to make a big fuss out of small issues," and "Frequently complains and warrants attention," respectively).

[6] We said nothing about time horizon in the long-term condition based on past pilot testing (Daniels, Joireman, & Kamdar, 2004) that indicated that instructing participants to assume they would be with the company for the rest of their career produced a very similar pattern of results to that observed when participants were given no explicit instructions regarding their time horizon in the organization. In addition, it seemed that of the two possible "long-term time horizon" manipulations, the one with the highest real-world validity was saying nothing (i.e., it is rarely the case these days that one expects to spend the rest of one's life at a company). We were also concerned that stating people would be with the company forever might introduce demand characteristics. Thus, our test of the short-term versus long-term conditions could be viewed as a conservative test of the hypotheses regarding time horizon. In addition, as noted, findings from Study 2 were replicated in Study 3, where we assessed employees' time horizon via self-report.

Table 1
*Intercorrelations Between Constructs and Descriptive Statistics: Studies 2 and 3*

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. CFC | — | .40*** | .34*** | .09 | .04 | .08 | .04 | −.02 | −.18** | .04 |
| 2. Empathy | .10 | — | .40*** | .36*** | .37*** | .39*** | .36*** | .07 | −.02 | .41*** |
| 3. Anticipated time horizon | .00 | −.07 | — | .32*** | .27*** | .32*** | .26*** | .05 | −.05 | .32*** |
| 4. Altruism | .16* | .16* | .52*** | — | .58*** | .61*** | .53*** | .24*** | .07 | .79*** |
| 5. Civic virtue | −.17* | .31*** | .44*** | .51*** | — | .34*** | .65*** | .29*** | .13* | .86*** |
| 6. Conscientiousness | −.02 | .16* | −.02 | .34*** | .73*** | — | .60*** | .23*** | .13* | .83*** |
| 7. Courtesy | .02 | .27*** | .49*** | .50*** | .24** | .53*** | — | .19** | .17** | .81*** |
| 8. Sportsmanship | −.18* | −.07 | .24** | .39*** | .37*** | .30*** | .21** | — | .10 | .42*** |
| 9. Voice | .01 | .28*** | .36*** | .34*** | .11 | .48*** | .38*** | .25*** | — | .29*** |
| 10. Overall OCB | −.05 | .26*** | .50*** | .77*** | .58*** | .79*** | .69*** | .63*** | .61** | — |
| Study 2 | | | | | | | | | | |
| *M* | 4.55 | 3.97 | 1.50 | 5.13 | 4.77 | 4.99 | 5.30 | 4.84 | 5.33 | 5.06 |
| *SD* | 1.14 | 0.56 | 0.50 | 0.60 | 0.47 | 0.62 | 0.48 | 0.56 | 0.45 | 0.37 |
| α | .92 | .85 | — | .82 | .71 | .82 | .78 | .79 | .79 | .90 |
| Study 3 | | | | | | | | | | |
| *M* | 4.28 | 4.56 | 4.28 | 4.43 | 4.51 | 4.39 | 4.44 | 4.09 | 3.89 | 4.29 |
| *SD* | 1.40 | 1.21 | 1.79 | 1.67 | 1.42 | 1.44 | 1.59 | 0.84 | 0.82 | 0.94 |
| α | .92 | .91 | .89 | .89 | .88 | .82 | .92 | .73 | .77 | .92 |

*Note.* Study 2 correlations are shown below the diagonal. Study 3 correlations are shown above the diagonal. CFC = consideration of future consequences; OCB = organizational citizenship behavior. Overall OCB is a mean of the 30 OCB items. In Study 2 ($N = 198$), anticipated time horizon was coded −1 (short-term) versus 1 (long-term). In Study 3 ($N = 245$), anticipated time horizon was a continuous variable.
* $p < .05$.   ** $p < .01$.   *** $p < .001$ (two-tailed).

Employees' supervisors ($N = 35$) rated how frequently their subordinates engaged in the 30 work-related behaviors described in Study 2 (alphas ranged from .73 to .92). The average number of ratings per supervisor was 7 (minimum = 4, maximum = 10). Because supervisors rated multiple employees, we followed Bliese's (2000) recommendation and examined the intraclass correlations—ICC(1)—to evaluate the independence of the ratings within supervisors. This measure is derived from an ANOVA model where the construct of interest is the dependent variable (the six OCB dimensions) and group membership (supervisory ratings) is the explanatory variable. ICC(1) compares variance in responses within groups to variance in responses between groups to index the extent to which supervisor ratings contribute to explained variance in the dependent variable. As none of the ICC(1) values approached a level that would justify aggregating the data to the supervisor level (all < .14), we conducted analyses at the individual level.

## Results

Correlations among the constructs are shown in Table 1. As can be seen, empathy and a long-term time horizon predicted higher levels of OCBs, whereas CFC was not consistently related to OCBs, and when it was, it most often showed a small, negative relationship with OCBs.

Data were next analyzed using a series of two-step regression analyses, as shown in Table 2. On Step 1, we entered anticipated time horizon, empathy, and CFC. On Step 2, we entered the two-way interactions between time horizon and each personality variable. Time horizon was contrast coded in Study 2 (–1 = short-term, 1 = long-term), and it was a continuous variable in Study 3. All continuous variables were mean deviated (centered) prior to analysis.

An inspection of Table 2 reveals a consistent pattern across the two studies. As shown on Step 1, a long-term time horizon predicted higher levels of all OCBs in Study 2 (except civic virtue) and Study 3 (except sportsmanship and voice). Empathy also showed significant positive correlations with all forms of OCBs

except sportsmanship (in both studies) and voice (in Study 2). By contrast, CFC typically showed a weak negative correlation with several forms of OCBs and no relationship with other forms of OCBs across the two studies.

Of greater interest are the significant two-way interactions, summarized in Step 2. As can be seen in Table 2, all of the significant interactions between time horizon and empathy were of a similar form (all interaction betas negative), as were the interactions between CFC and time horizon (all interaction betas positive). To illustrate the nature of these interactions, we display the relevant two-way interactions using the overall OCB index in Figure 2 (Time Horizon × Empathy) and Figure 3 (Time Horizon × CFC). As can be seen, the nature of these interactions was very consistent across the two studies (see Figures 2A, 2B, 3A, and 3B) and clearly in line with Hypotheses 2 and 3.[7]

An inspection of Figure 3 reveals that the nature of the interaction between empathy and time horizon supported our hypothesis that a short-term time horizon would have an adverse impact on OCBs mainly among those low in empathy. In a similar vein, an inspection of Figure 3 reveals that the interaction between CFC

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[7] LePine, Erez, and Johnson (2002) argued that analyses of individual forms of OCBs may be redundant, given that various forms of OCBs are frequently correlated. Because the correlations among the OCB variables in our study were moderately high, we preceded our individual regression analyses with a multivariate regression analysis. Results indicated that the effects of empathy, CFC, and time horizon and the interactions between empathy and time horizon and between CFC and time horizon were significant at the multivariate level in predicting the six dimensions of OCB. Although these results suggest an overall trend across the six OCB dimensions, a close inspection of our results suggests that there are also meaningful differences between the different forms of OCBs that could prove informative, especially in light of the fact that we have chosen to

Table 2

*Summary of Multiple Hierarchical Regression Analyses Predicting Self-Reported (Study 2) and Supervisor-Rated (Study 3) Willingness to Engage in Six Types of Organizational Citizenship Behaviors (OCBs)*

| Variable | Altruism | Civic virtue | Conscientiousness | Courtesy | Sportsmanship | Voice | Overall OCB |
|---|---|---|---|---|---|---|---|
| | | | Study 2 | | | | |
| Step 1 | | | | | | | |
| TH | .53*** | −.01 | .46*** | .51*** | .24** | .38*** | .54*** |
| Empathy | .19** | .16* | .36*** | .30*** | −.04 | .31*** | .31*** |
| CFC | .14* | −.04 | −.20** | −.01 | −.18* | −.02 | −.08 |
| $R^2$ | .33*** | .03 | .35*** | .33*** | .09*** | .22*** | .37*** |
| Step 2 | | | | | | | |
| TH × Empathy | −.14*** | −.02 | −.14*** | −.14*** | −.01 | −.09*** | −.09*** |
| TH × CFC | .16*** | .21*** | .27*** | .12*** | .21*** | .12*** | .18*** |
| $R^2$ | .44*** | .21*** | .57*** | .46*** | .23*** | .32*** | .64*** |
| $\Delta R^2$ | .11*** | .18*** | .22*** | .13*** | .14*** | .10*** | .27*** |
| | | | Study 3 | | | | |
| Step 1 | | | | | | | |
| TH | .24*** | .18** | .22*** | .18** | .04 | −.01 | .23*** |
| Empathy | .31** | .36*** | .35*** | .35*** | .08 | .06 | .39*** |
| CFC | −.12 | −.17* | −.13* | −.16* | −.07 | −.20** | −.19** |
| $R^2$ | .18*** | .18*** | .20*** | .16*** | .01 | .04* | .22*** |
| Step 2 | | | | | | | |
| TH × Empathy | −.45*** | −.33*** | −.24** | −.31*** | −.19** | −.11 | −.27*** |
| TH × CFC | .45*** | .62*** | .52*** | .58*** | .12* | −.01 | .38*** |
| $R^2$ | .28*** | .37*** | .32*** | .29*** | .06* | .05* | .39*** |
| $\Delta R^2$ | .10*** | .19*** | .12*** | .13*** | .05** | .01 | .18*** |

*Note.* Values are standardized regression coefficients. CFC = consideration of future consequences; TH = anticipated time horizon. Overall OCB is a mean of the 30 OCB items. In Study 2 ($N = 198$), TH was coded −1 (short-term) versus 1 (long-term). In Study 3 ($N = 245$), TH was a continuous variable.
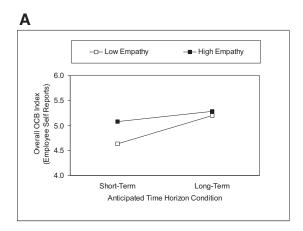* $p < .05$.   ** $p < .01$.   *** $p < .001$.

and time horizon was consistent with our hypothesis that a short-term horizon would have an adverse impact on OCBs mainly among those high in CFC. To further explore these interactions, we conducted simple slope analyses examining the impact of time horizon on OCBs at high (+1 standard deviation) and low (−1 standard deviation) levels of empathy and CFC, respectively (Cohen, Cohen, West, & Aiken, 2003), as summarized in Table 3. Close inspection of the simple slopes reveals that the interactions on the overall OCB index (see Figures 2 and 3) are generally representative of the patterns observed in the more narrowly defined OCB scales.

Simple slope analyses exploring the interactions between time horizon and empathy, shown in the top of Table 3, revealed that a short-term horizon generally led to significantly lower levels of OCBs than a long-term horizon when empathy was low, whereas the impact of time horizon was much smaller when empathy was high. Overall, these results provide strong support for the hypothesis that employee time horizon would have a more adverse impact on OCBs among employees low in dispositional empathy (Hypothesis 2). Simple slope analyses designed to follow up the interactions between time horizon and CFC, shown in the bottom of Table 3, revealed that when CFC was high, a short-term horizon led to lower levels of OCBs than did a long-term horizon. By contrast, when CFC was low, time horizon showed little relationship with OCBs. As a set, these results support the hypothesis that a short-term time horizon would have a more adverse impact on OCBs among those high in CFC (Hypothesis 3).[8]

focus on a novel set of predictors that have received little attention in the literature, a position in keeping with the recommendations of LePine et al. To further evaluate the overlap between the different forms of OCBs, we conducted a series of confirmatory factor analyses in which we tested a single-factor model, with all items loading on a single OCB factor, against a six factor model in which items only loaded on their respective factors. All forms of OCBs were allowed to covary. In both studies, the six factor model proved to be a significantly better fit to the data than the one factor model ($ps < .0001$), and only the six factor model yielded acceptable fit indices. These analyses provide additional support for the value in analyzing the different forms of OCBs separately. In light of these considerations, in our initial studies, we chose to err on the side of reporting more rather than less detail about the relations between our predictors and the six different forms of OCBs under investigation. More detail on the multivariate regressions and CFAs is available from Jeff Joireman.

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[8] Results also revealed a significant Empathy × CFC interaction on altruism, civic virtue, and conscientiousness. Altruism and civic virtue showed significant positive relationships with empathy only at high levels of CFC. In contrast, conscientiousness showed a significant positive correlation with empathy only at low levels of CFC. We also found three-way interactions between CFC, empathy, and time horizon on conscientiousness, sportsmanship, voice, and the overall OCB index. Analyses revealed a significant positive relationship between empathy and these dependent variables among low CFCs in the short-term and long-term conditions and among high CFCs in the short-term condition. By contrast, these relationships were not significant among high CFCs in the long-term condition. However, because these interactions were not predicted, and because the interactions were not replicated in Study 3, we do not discuss them in detail. Readers interested in a more detailed account may contact Jeff Joireman.
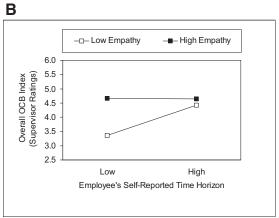
*Figure 2.* Self-reported (A: Study 2) and supervisor-rated (B: Study 3) willingness to engage in organizational citizenship behaviors (overall OCB index) as a function of anticipated time horizon and empathy.

## Discussion

The present findings provide support for our hypotheses that OCBs would be more likely among employees high in empathy and those who adopt a long-term horizon. Results also supported our interaction hypotheses that a short-term time horizon would have an adverse impact on OCBs mainly among employees low in empathy and those high in CFC. Also noteworthy, results were consistent across the two studies, indicating the patterns generalize across raters (self vs. supervisor) and ways of conceptualizing employee time horizon (manipulated vs. self-report). In the General Discussion section, we consider the implications of our findings.
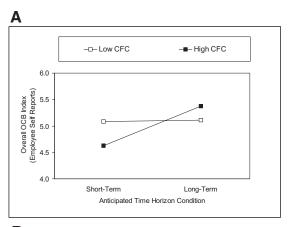
## General Discussion

We have argued that OCBs represent a social dilemma in which short-term sacrifice by an employee leads to long-term benefits for the employee and his or her organization. On the whole, results were consistent with our hypotheses based on a social dilemma analysis of OCBs. Study 1 supported the hypothesis that OCBs reflect social delayed fences, and Studies 2 and 3 revealed generally good support for our two key interaction hypotheses: As predicted, a short-term time horizon led to a decline in OCBs

mainly among employees low in empathy and high in CFC. As a set, the current findings help advance work on OCBs, social dilemmas, and the individual-differences constructs of interest while also suggesting several practical applications that may help to encourage OCBs.

### Contribution to Work on OCB

The present studies make several contributions to research on OCB. First, our studies address a limitation noted by Podsakoff et al. (2000) and others (cf. Van Dyne et al., 1995) that research has devoted sparse attention to the underlying nature of OCBs and related constructs. As George and Jones (2000) pointed out, appropriate construct definition is a key step in the development of sound, theoretically based predictions concerning any given problem of interest, which suggests that clarifying the OCB construct can aid in predicting OCBs. The present findings lend clear support to the idea that OCBs reflect a social delayed fence, and the claim that social and temporal concerns relevant in social dilemmas can meaningfully predict OCBs. As such, we believe that viewing OCBs as social dilemmas could potentially eliminate much of the definitional confusion that has developed around
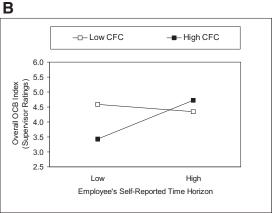


*Figure 3.* Self-reported (A: Study 2) and supervisor-rated (B: Study 3) willingness to engage in organizational citizenship behaviors (overall OCB index) as a function of anticipated time horizon and concern with future consequences (CFC).

Table 3
*Simple Slope Analyses Exploring Anticipated Time Horizon (TH) × Personality Interactions*

| Variable | Altruism | Civic virtue | Conscientiousness | Courtesy | Sportsmanship | Voice | Overall OCB |
|---|---|---|---|---|---|---|---|
| | | | Time Horizon × Empathy | | | | |
| Study 2 | | | | | | | |
| TH at low empathy | .76*** | .02 | .70*** | .81*** | .25** | .58*** | .78*** |
| TH at high empathy | .31*** | −.04 | .23** | .21** | .22* | .18* | .28*** |
| Study 3 | | | | | | | |
| TH at low empathy | .54*** | .47*** | .44** | .42*** | .28** | .12 | .57*** |
| TH at high empathy | .00 | .00 | .10 | .03 | −.17 | −.14 | −.01 |
| | | | Time Horizon × CFC | | | | |
| Study 2 | | | | | | | |
| TH at low CFC | .26** | −.44*** | .03 | .27*** | −.14 | .12 | −.05 |
| TH at high CFC | .81*** | .43*** | .41*** | .75*** | .62*** | .63*** | 1.03*** |
| Study 3 | | | | | | | |
| TH at low CFC | .00 | −.21** | −.09 | −.14 | −.09 | .00 | −.13 |
| TH at high CFC | .54*** | .68*** | .63*** | .59*** | .19 | −.02 | .68*** |

*Note.* Values shown are standardized regression coefficients. CFC = consideration of future consequences. In Study 2 ($N = 198$), TH was coded −1 (short-term) versus 1 (long-term). In Study 3 ($N = 245$), TH was a continuous variable.
* $p < .05$.  ** $p < .01$.  *** $p < .001$.

OCBs over the past decade and could help identify relevant and novel predictors of OCBs.

Having said this, it is still possible that our social dilemma analysis of OCBs could be viewed as a subtle reframing of an old argument, insofar as (a) OCBs have long been viewed within the context of social exchange theory and (b) decisions regarding whether to cooperate within generalized exchange networks can be viewed as a social dilemma (Yamagishi & Cook, 1993). Does a social dilemma analysis really contribute to our understanding of OCBs? We believe it does for at least two reasons. First, although it may seem reasonable to assume that OCBs reflect a social dilemma, it is important to reiterate that researchers and decision makers do not always agree on the incentive structure underlying real-world problems (Plous, 1993). Accordingly, regardless of the particular application, we believe it is useful to evaluate the basic underlying assumption that the decision in question does represent a social dilemma before proceeding to test social dilemma based predictions. Second, it is important to recognize that the real value in a social dilemma analysis of a given real-world problem is its ability to make meaningful predictions that are supported by the data. On this count, our results are clear, as our social dilemma analysis of OCBs led to several important theoretical and practical findings that can help to advance work on OCBs in their own right. In sum, a social dilemma analysis of OCBs allowed us to shed light on the underlying OCB construct and make theoretically meaningful predictions that were supported by the data.

The current studies also help extend research on the relationship between personality and OCBs. Although various researchers (Borman & Motowidlo, 1993; Motowidlo et al., 1997; Organ, 1988; Organ & Ryan, 1995) have argued that personality variables should be the strongest predictors of OCB, relative to contextual variables, results to date have not supported this prediction (e.g., Facteau, Allen, Facteau, Bordas, & Tears, 2000; McManus & Kelly, 1999; Organ & Ryan, 1995; Podsakoff et al., 2000). One possible explanation is that a relatively small number of person-

ality variables have been empirically explored so far (Organ & Ryan, 1995). Another explanation is that dispositional variables do not have a simple main effect on OCBs but rather interact with other features of the person and/or situation in predicting OCBs. In line with suggestions outlined by Organ and Ryan (1995) and Van Dyne et al. (1995), the present study contributes to the current literature by exploring a relatively new set of dispositional variables (empathy and CFC) and by investigating how these variables interact with an employee's anticipated time horizon in an organization. To our knowledge, although past research has linked empathy with OCBs, there has been no published research investigating the connection between CFC and OCBs. Moreover, there has there been no published research examining how empathy or CFC might moderate the impact of employee time horizon on OCBs. Our studies thus add to current personality–OCB research by exploring new antecedents of OCBs and demonstrating the value of an interactionist approach to OCBs.

Finally, our studies help address the call for increased theory and research on the role of time-related factors in organizational settings (e.g., George & Jones, 2000; Kammeyer-Mueller, Wanberg, Glomb, & Ahlburg, 2005). By framing OCBs as social delayed fences, we have highlighted the relevance of the temporal conflict underlying OCBs. Building on this analysis, we also examined how two temporal concerns (employee time horizon and CFC) would impact OCBs. In our studies, an employee's anticipated time horizon showed a clear relationship with OCBs, and it interacted with empathy and CFC in a meaningful fashion. As such, our results help contribute to the emerging work on the role of temporal concerns in organizational settings.

## Contribution to Work on Social Dilemmas

In addition to advancing work on OCBs, the present studies make at least two contributions to research on applied social dilemmas. First, the present studies highlight the relevance of

social dilemmas in an applied domain that has received little attention from social dilemma researchers (cf. Cropanzano & Byrne, 2000). Although group productivity has been framed as a social dilemma (e.g., Kerr, 1983; Kerr & Bruun, 1983), social dilemma researchers have devoted little attention to OCBs. Our results suggest that OCBs are a rich testing ground for insights gained from past social dilemma theory and research. Second, our studies illustrate a two-stage analysis of real-world social dilemmas. In Stage 1, researchers address whether the applied problem of interest does in fact constitute a social dilemma. In Stage 2, researchers proceed to test social dilemma based predictions. At one level, the question addressed at Stage 1 is a rather basic one. Indeed, as an earlier reader pointed out, it is unlikely that many researchers would disagree that OCBs reflect an example of co-operative behavior involving some tension between individual and collective interests. We agree. However, confirming whether a given real-world problem conforms to a certain model is also important, because, to paraphrase Hamburger (1979), the value of such an analysis will largely depend on the extent to which researchers "properly abstract [a particular] situation" (p. 83; cf. Plous, 1993). This suggests that researchers interested in studying real-world social dilemmas may profit by first assessing whether the decision in question represents a social dilemma. The present study provides one illustration of how this might be accomplished.

### Contribution to Work on Empathy and CFC

The present studies advance work on empathy and CFC as well. For example, although not a direct aim of our studies, our results bear on the long-standing debate over whether all prosocial behavior is guided by selfish concerns or whether some prosocial behavior may be guided by altruistic concerns. In one classic study on this question, Batson, Duncan, Ackerman, Buckley, and Birch (1981) led participants to experience high or low levels of empathy and then offered them an opportunity to help another individual under conditions in which it was either easy or difficult to escape the helping environment. On the basis of the empathy–altruism hypothesis, Batson et al. (1981) predicted, and found, that empathic individuals helped regardless of how easy or difficult it was to escape, whereas individuals low in empathy only helped when it was hard to escape. Although Batson et al. (1981) focused on how situationally induced empathy influences willingness to help, their study bears a resemblance to our focus on employees' short- versus long-term time horizon in an organization. Employees who will soon leave an organization can more easily "escape" when presented with an opportunity to engage in OCBs, whereas employees who plan to stay with an organization for the long haul may find it more difficult to escape when presented with the same opportunity. Thus, employees high in empathy should engage in OCBs, regardless of their time horizon within an organization, whereas individuals low in empathy should engage in OCBs only when they anticipate a long-term horizon. Our results were consistent with this pattern, conceptually replicating the work of Batson, Bolen, Cross, & Neuringer-Benefiel (1986) within a new domain of prosocial behavior (OCBs) and using different operationalizations of empathy (disposition) and "escape" (time horizon).

The current results also advance work on individual differences in CFC. To date, CFC has been linked with a range of important outcomes including health-related and proenvironmental behaviors. Although impressive in scope, many studies reveal that the main effect of CFC is not always strong and that a clearer picture often emerges when researchers examine the interaction between CFC and the perceived consequences of an individual's actions. In general, when such interactions have been examined, individuals high in CFC exhibit "better" behavior only when they believe that their actions hold future consequences. Counterintuitively, high CFCs can also, at times, exhibit "worse" behavior when they are likely to believe that there will be no future consequences associated with their actions (e.g., Joireman et al., 2003). Our results are consistent with this pattern, in that high levels of CFC predicted lower levels of OCBs when employees anticipated a short-term horizon. This suggests that high CFC employees may be very good employees if they believe they have a future in an organization, but not if they believe they are on their way out the door. Future research along these lines could provide valuable insights into how to maintain productivity among high CFC employees who may not perceive a long-term future within an organization.

It is worth noting, in our discussion of CFC, that our primary focus has been on how concerns related to the future predict willingness to engage in OCBs. Although we believe this focus has proven informative, concerns related to the past are also highly relevant and interesting. Indeed, at least two recent studies have demonstrated that people become less inclined to value (Flynn, 2003) and return favors (Burger, Horita, Kinoshita, Roberts, & Vera, 1997) with the passage of time. As such, any comprehensive treatment of how temporal concerns relate to OCBs should incorporate thoughts and feelings about the past, present, and future (for a comprehensive treatment of the role of time in theory building, see George & Jones, 2000).

### Practical Applications

Practically speaking, the present results suggest that encouraging employees to engage in OCBs requires careful attention to the social and temporal dimensions underlying OCBs. This could be accomplished through the hiring process (e.g., hiring people high in empathy and CFC) or through interventions aimed at enhancing concern with the organization (e.g., social identification) and helping employees to envision a long-term future with the company. Alternatively, interventions might be tailored to individuals by highlighting the consequences (personal–social, immediate–delayed) that individuals find particularly persuasive.

### Strengths, Limitations, and Future Directions

Although we believe that the present studies offer several important insights, they should be interpreted within the context of at least two limitations. First, strictly speaking, personality constructs prevent firm conclusions regarding causality. We attempted to minimize these problems by assessing empathy and CFC at least 2 weeks prior to participants' OCB responses (Study 2) and using supervisor ratings of OCBs (Study 3). Nevertheless, future research will be necessary before concluding that empathy and CFC influence willingness to engage in OCBs. Future research might also benefit by examining whether the current pattern of results can be obtained with broader dimensions of personality such as agreeableness and conscientiousness. Given that our sample was

composed mostly of male engineers in one specific field of employment, future studies should also attempt to replicate these findings with a broader sample.

Another potential limitation is that two of our studies used hypothetical vignettes. Although vignettes have been used widely in work on employee selection and appraisal (e.g., Moore, 1984; Rose, 1978), vignettes have not been widely used in the OCB domain. However, vignettes offer several advantages in cases such as the current study. First, vignettes allow for the inclusion of experimental manipulations that permit causal inferences to be made (Cropanzano, Aguinis, Schminke, & Denham, 1999). Second, vignettes permit the investigation of contextual factors, such as employee time horizon, which tend not to be considered in questionnaire-based research. Third, vignettes provide consistent stimuli across participants, which can help to reduce the error associated with unaccounted contextual factors. Nevertheless, to address concerns regarding vignettes, in our final study, we solicited self-reported employee time horizon and supervisor ratings of OCBs. We believe this combination of methods provides stronger support for our hypotheses than findings based on any single methodology.

The preceding considerations point to the need for future research. Still, we believe the present studies have several strengths. First, our studies highlight the overlap between two important lines of research that to date have progressed along fairly independent lines. Second, the present studies advance work on empathy and CFC and demonstrate how such constructs interact with an employee's time horizon to predict OCBs. Finally, the present studies illustrate a two-stage approach to the analysis of real-world social dilemmas that may prove useful in future efforts to apply social dilemma theory and research to additional real-world problems.

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