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The Moderating Effect of Reciprocity Beliefs on Work Outcomes

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Graduate Program in Psychology
A thesis submitted in partial fulfillment of the requirements for the degree in Doctor of Philosophy
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The Moderating Effect of Reciprocity Beliefs on Work Outcomes

(Spine title: Effect of Reciprocity on Work Outcomes)

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by

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Graduate Program in Psychology

A thesis submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

The School of Graduate and Postdoctoral Studies
The University of Western Ontario
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THE UNIVERSITY OF WESTERN ONTARIO
School of Graduate and Postdoctoral Studies

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The Moderating Effect of Reciprocity Beliefs on Work Outcomes

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Abstract

 Researchers have long assumed that employees' reactions to treatment by their organization are guided by reciprocity norms. Eisenberger, Huntington, Hutchison, and Sowa (1986) developed a measure to assess how sensitive employees were to reciprocity obligations, focusing in particular on their beliefs that work effort should depend on treatment by the organization. Since then, research has found that this Exchange Ideology (EI) predicts variables such as organizational citizenship but cannot predict negative outcomes such as workplace deviance. Insight into why this is the case can be found by examining the related construct of reciprocity orientation. Positive (PRO) and Negative Reciprocity Orientation (NRO) measure the extent to which individuals believe they should reward individuals who have helped them or punish individuals who have hurt them, respectively (Eisenberger, Lynch, Aselage, & Rohdieck, 2004). Missing from the literature on reciprocity beliefs is a similar idea of retaliating against an organization that caused harm. In this dissertation, I developed a measure of Negative Exchange Ideology (NEI), the belief that it is appropriate to retaliate against an organization for negative actions on the part of that organization. Confirmatory factor analyses in Study 1 supported a four-factor structure composed of EI, NEI, PRO, and NRO (N = 302). This structure was supported in Study 2, and NEI moderated the relationship between psychological contract breach and deviance directed at the organization, such that for employees higher in NEI, higher breach perceptions were related to more deviance. EI moderated between breach and citizenship behavior directed at the organization, and NRO moderated between supervisor interactional justice and supervisor-directed deviance (N = 194). PRO was expected to moderate between justice and supervisor-directed OCBs, but no significant effect was found. In Study 3, scenarios depicting high and low levels of breach or interactional justice were presented to participants (N = 282) and anticipated

reactions measured in order to gauge the causal effects of reciprocity beliefs. As expected, NEI moderated between breach and organizational deviance, and NRO moderated between injustice and supervisor-directed deviance. Taken together, these results suggest that reciprocity beliefs are useful predictors of workplace deviance and, in some cases, citizenship behaviors.

KEYWORDS: reciprocity orientation, exchange ideology, organizational justice, psychological contract breach, workplace deviance, organizational citizenship behavior, measure development

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Chapter 1: General Overview

Researchers have long known that specific actions on the part of an organization can affect how employees behave in return. Employees' levels of workplace deviance and organizational citizenship behaviours, in particular, are thought to be due in part to organizational antecedents such as justice (e.g., Henle, 2005; Moorman, 1991; Rupp & Cropanzano, 2002) and perceived organizational support (e.g., Ladd & Henry, 2000; O'Brien & Allen, 2008). The assumption underlying this type of research is that employees react to the way they are treated by the organization. If an organization treats an employee in a way that benefits them or hurts them, then employees feel obligated to reciprocate in such a way as to reward (or harm) the organization for its actions (Colquitt, 2008). An important question that has not yet received adequate research attention is whether that obligation to reciprocate is felt more or less strongly by different individuals, and whether that in turn affects how employees respond to the organization's actions. The purpose of this dissertation is to examine this question, first by refining and expanding on existing measures of sensitivity to obligations (i.e., exchange ideology and reciprocity orientation), and then by determining whether the various forms of reciprocity beliefs do in fact impact the relations between theoretically relevant organizational antecedents and outcomes.

This chapter will be organized as follows: First, I will describe the extant research on reciprocity beliefs and explain the areas in need of improvement. Next, I will describe some of the relations (e.g., between organizational justice and workplace deviance) that could be further clarified through the use of reciprocity as a moderator, and finally I will briefly outline the general hypotheses of the study.

Reciprocity Obligations

Social exchange theory has been used in various disciplines to explain human behaviour in social relationships (Cropanzano & Mitchell, 2005). Early researchers (e.g., Homans, 1961, as cited in Cook & Rice, 2003) proposed, in essence, that human interactions generate obligations among those involved. Economic interactions generate economic obligations, but social interactions generate more intangible obligations. Individuals involved might repay the obligation in a variety of ways at an unspecified time. For example, a homeowner who borrows a tool from his or her neighbour might later shovel that neighbour's driveway in return, or a shopper who receives particularly good service might write a glowing review of the store afterwards.

Although social exchange theory involves several "rules" of exchange, such as rationality, altruism, and competition, (Cropanzano & Mitchell, 2005), my primary focus is on reciprocity rules. Gouldner (1960) was among the first to write about the norm of reciprocity. He argued that reciprocity is a universally accepted norm involving two demands: people should help those who have helped them, and people should not injure those who have helped them. Gouldner also briefly noted the existence of a *negative* reciprocity norm wherein people return injuries that have been inflicted on them. According to Gouldner, reciprocity can be conceptualized as a moral norm "no less universal and important an element of culture than the incest taboo" (p. 171). In fact, Cialdini and his colleagues (e.g., Cialdini et al., 1975) list the use of reciprocity norms as one of the best ways to induce compliance in individuals around the world; people feel indebted to others who have provided them with some sort of benefit and feel a need to repay that debt by agreeing to a request.

Since reciprocity's introduction into the scientific literature, researchers have examined its effects in both social and organizational settings. Much of industrial/organizational psychology research is at least implicitly based on the idea that employees react to organizational decisions or policies by changing their attitudes or behaviours accordingly (Cropanzano & Mitchell, 2005). For instance, psychological contract research often examines how employees react when the employer does not live up to the employees' expectations (Coyle-Shapiro & Kessler, 2002), and most research on perceived organizational support measures its effects on outcomes such as organizational citizenship behaviours (e.g., Wayne, Shore, & Liden, 1997). The social exchange perspective on justice argues, in part, that fair treatment on the part of the organization will lead to reciprocal actions on the part of the individual(s) affected, since that individual should feel obligated to return the 'favour.' According to Colquitt (2008), "[t]hose behaviours consist of reciprocation efforts aimed at repaying the original fairness benefit" (p. 81). One can easily see that the reverse is also likely to be true; behaviours could be aimed at repaying the costs of unfairness. In either case, the degree to which a person believes that others should be repaid for fair or unfair behaviour should play a role in determining his or her response.

Exchange Ideology

Although reciprocity is thought to be a universal norm (Gouldner, 1960), studies have shown that there are individual differences in the strength of this norm. Early researchers referred to the strength of an individual's reciprocity beliefs as *Exchange Orientation* (e.g., Murstein, Cerreto, & MacDonald, 1977) or *Exchange Ideology* (e.g., Eisenberger, Huntington, Hutchison, & Sowa, 1986). These researchers examined primarily the positive side of Gouldner's (1960) reciprocity norm, focusing on how much participants expected to give back to

other parties. In these studies, participants were asked to indicate their agreement with statements such as "If I do dishes three times a week, I expect my spouse to do them three times a week" (Murstein et al.) and "An employee's work effort should depend partly on how well the organization deals with his or her desires and concerns" (Eisenberger et al.). The more the respondent agreed with these items, the stronger was their Exchange Ideology.

Eisenberger et al. (1986) were the first to use Exchange Ideology in an organizational sense, theorizing that employees who were higher in Exchange Ideology "favor[ed] the trade of work effort for material and symbolic benefit" (p. 501). Employees lower in Exchange Ideology were not influenced as much by reciprocity beliefs and thus would exert the same effort regardless of the organization's actions. Accordingly, these researchers hypothesized and found that the relation between perceived organizational support and absenteeism was moderated by Exchange Ideology: teachers who were higher in Exchange Ideology were less likely to be absent when they felt supported by the organization. Since that article was published, research has shown that Exchange Ideology moderates between perceived organizational support and organizational citizenship behaviours (OCBs) aimed at the organization (Ladd & Henry, 2000), perceived organizational support and work effort (Orpen, 1994), and procedural justice perceptions and satisfaction with training (Witt & Broach, 1993).

A more recent study by Scott and Colquitt (2007) tested whether Exchange Ideology would act as a moderator in the relation between injustice and outcomes such as performance, OCBs, withdrawal, and deviance. These authors argued that employees who are higher on Exchange Ideology should be more likely to respond to injustice by decreasing performance and OCBs and increasing withdrawal and deviant behaviours because these actions would be a "reasonable" way to reciprocate the organization's actions. Participants read vignettes depicting

a fair or unfair situation and were asked to indicate how they would respond. As expected, Exchange Ideology moderated the relationships between the various forms of justice and withdrawal, OCBs, and performance: At lower levels of justice, participants who were higher on Exchange Ideology were more likely to indicate that they would decrease OCBs and performance and increase withdrawal behaviours. Interestingly, Exchange Ideology was a more useful moderator than either Equity Sensitivity [1] or the Big Five personality factors.

Notice that the justice X Exchange Ideology interaction was *not* a significant predictor of deviant behaviours in any of these analyses. Scott and Colquitt (2007) speculated that this could have been due to either social desirability issues or the possibility that deviant behaviours are more risky for employees to engage in than the other behaviours (OCBs, performance, and withdrawal). An alternative explanation that was not offered in the article is that Exchange Ideology, as it is currently measured, does not fully tap into Gouldner's (1960) *negative* norm of reciprocity. Exchange Ideology is primarily conceptualized and measured on the positive pole of the norm of reciprocity, wherein the effort one puts in is related to the benefits one receives. Recall Gouldner's two rules of (positive) reciprocity: people should help those who have helped them, and people should not injure those who have helped them. In all of the research described above, participants with strong exchange ideologies helped those who helped them (e.g., increasing OCBs in response to fairness), and *reduced* that help when reciprocity was at stake. In each case, a reduction in benefits from the organization resulted in a reduction in "help" from the participant: fewer OCBs, less effort, lower performance, lower attendance, more withdrawal, and

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[1] It is worth noting here the difference between Equity Sensitivity and Exchange Ideology. The primary distinction, according to Scott and Colquitt (2007) is that whereas Equity Sensitivity is concerned with distributive justice (i.e., tangible rewards), Exchange Ideology concerns anything that can be exchanged in a social relationship (e.g., pay, interpersonal treatment, etc.).

so on. Unlike deviance, none of these behaviours are meant to actively *hurt* the organization. Gouldner's negative reciprocity norm is more in line with behaviours that hurt the organization, as it states that people should hurt those who have hurt them. Thus, organizational research to date has missed out on an important component of reciprocity. This dissertation will draw from research in social psychology in order to create a new measure that assesses negative reciprocity beliefs in the workplace.

Reciprocity Orientation

Social psychologists have long studied reactions to harm (e.g., Helm, Bonoma, & Tedeschi, 1972), and the literature on individual beliefs in negative reciprocity is primarily rooted in social psychology. Eisenberger, Lynch, Aselage, and Rohdieck (2004) developed measures of Positive and Negative Reciprocity Orientations. According to these authors, individuals with a strong *Positive* Reciprocity Orientation are expected to be more likely to reward positive behaviours from other individuals. On the other hand, individuals with a strong *Negative* Reciprocity Orientation are thought to be more likely to reciprocate negative acts with negative acts of their own. Around the same time, Perugini, Gallucci, Presaghi, and Ercolani (2003) developed the Personal Norm of Reciprocity Questionnaire to measure both Positive and Negative Reciprocity Orientations, along with beliefs about reciprocity in general. Their definition of reciprocity orientation includes an increased sensitivity to positive or negative acts. Given that the items in both measures tap only the idea of appropriateness of reciprocal behaviours, and that this is consistent with the definition of Exchange Ideology reviewed earlier, Eisenberger et al.'s conceptualization will be the one used in this dissertation. In their view, reciprocity orientation is strictly concerned with the appropriateness of reciprocating positive or negative acts with positive or negative acts of one's own.

The few studies that have examined reciprocity orientation have generally found the expected results. Perugini et al. (2003), in a scenario study, found that Positive Reciprocity Orientation was related to the tendency to reward others (or reduce that reward) based on prior behaviours, whereas Negative Reciprocity Orientation was related to the tendency to punish. Eisenberger et al. (2004) used an experimental design to determine that when participants were treated negatively, they were more likely to respond negatively when they were higher in Negative Reciprocity Orientation. A 2006 study by Eder, Aquino, Turner, and Reed measured participants' reactions to the Abu Ghraib prison scandal as a function of their Negative Reciprocity Orientation. These authors found that the perceived morality of punishing the troops involved was related to the belief that the Americans acted wrongly only for participants who were higher in negative reciprocity orientation: When participants with high Negative Reciprocity Orientations believed that the Americans were in the wrong, they were more likely to endorse punishing the troops. In addition, participants who were higher in Negative Reciprocity Orientation were less likely to allocate charitable donations to the U.S. Army when they believed that the military was in the wrong at Abu Ghraib. Conversely, individuals who were lower on Negative Reciprocity Orientation were no more or less likely to donate to the military or endorse punishment for the troops when they felt the Americans behaved wrongly.

Only one study, to my knowledge, has been conducted to examine the effects of reciprocity orientation in the workplace. Mitchell and Ambrose (2007) measured employees' perceptions of abusive supervision and hypothesized that abused employees would be more likely to retaliate against their leaders *if* they were high on Negative Reciprocity Orientation. Indeed, these authors found that negative reciprocity did moderate the relation between abusive supervision and supervisor-directed deviance. Interestingly, Mitchell and Ambrose also

hypothesized that negative reciprocity would *not* moderate the relations between abusive

supervision and organizational and interpersonal (directed at employees other than the

supervisor) deviance, since retaliatory behaviours should be directed at the source of the negative

outcomes. The results showed that this was in fact accurate; employees who were higher in

Negative Reciprocity Orientation preferred to retaliate directly against the abuser. These findings

suggest that measuring Negative Reciprocity Orientation with respect to the organization (i.e.,

Negative Exchange Ideology) might also be important for predicting employee responses to

negative acts on the part of the employer.

Adding to the Existing Measures

The findings reviewed above suggest that Exchange Ideology and reciprocity beliefs

should moderate the relation between antecedents such as injustice and various outcomes. In

fact, Scott and Colquitt (2007) wrote that "... Exchange Ideology should receive more focus and

attention as a justice moderator and should be included in studies that attempt to explore

individual boundary conditions for justice effects" (p. 317), and Cropanzano and Mitchell (2005)

wrote that "[c]learly, further investigations of how exchange orientation influences

organizational relationships [are] of great importance" (p. 878). Based on the available literature,

I expect that the more positive forms of reciprocity beliefs (i.e., Exchange Ideology and Positive

Reciprocity Orientation) should be particularly important for so-called "positive" reactions to

justice (e.g., OCBs, performance, etc.), whereas negative forms of reciprocity beliefs (i.e.,

Negative Exchange Ideology and Negative Reciprocity Orientation) should be better predictors

of "negative" reactions, such as deviance.

Positive and Negative Reciprocity Orientation are both measured with individuals as the

target of reciprocity (e.g., If someone dislikes you, you should dislike them). Exchange Ideology

is measured with the organization as the target (e.g., An employee who is treated badly by a

company should work less hard) [2]. As it is currently conceptualized, though, Exchange Ideology

misses the more negative aspects of reciprocity (see Appendix A for all items). In the current

measure, the exchange is in terms of work effort; participants are asked to judge whether

employees should increase or decrease work effort in exchange for organizational actions. As

noted earlier, considering only the positive pole of reciprocity norms could mean neglecting a

significant aspect of a person's motivations. As such, part of this dissertation will involve

developing a measure of *Negative Exchange Ideology* that takes negative reciprocity norms into

account by asking participants whether more negative behaviours (e.g., retaliation) are

acceptable in return for organizational actions.

The inclusion of both individual- and organization-targeted reciprocity behaviours is

important because, as noted by researchers such as Sinclair and Tetrick (1995), employees

ascribe characteristics to their organization and see themselves as being in social exchange

relationships with that organization. If a negative outcome is thought to be caused by

organizational factors, employees should be more likely to retaliate against the organization (i.e.,

engage in organizational deviance) if they subscribe to Negative Exchange Ideology beliefs.

Similarly, employees should be more likely to retaliate against a specific individual (i.e., engage

in interpersonal deviance) if they believe that individual is responsible for the negative outcome

and are higher in Negative Reciprocity Orientation. The same is also true for Exchange Ideology

or Positive Reciprocity Orientation; employees should be more likely to respond favourably to

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[2] It is worth noting that Ladd and Henry (2000) modified the original Exchange Ideology
measure to include coworker-targeted reciprocity, but the same issue applies to this measure:
only positive aspects of exchange are probed, such that participants are asked to judge whether
the effort they expend towards coworkers should depend on the coworkers' own behaviours
(note that this measure is similar to Positive Reciprocity Orientation).

positive acts on the part of the organization or the individual. The conditional nature of both types of exchange ideology and reciprocity orientation (i.e., the behaviours of one party depend on the behaviours of another; Perugini & Gallucci, 2001) makes these constructs particularly well suited for examination as moderator variables.

In the next section, I will describe some of the antecedent-behavioral outcome relations that might be moderated by reciprocity beliefs. Note that the term "reciprocity *beliefs*" is used hereafter to refer to the four types of beliefs (Positive and Negative Reciprocity Orientation, Exchange Ideology, and Negative Exchange Ideology) collectively and is not meant to refer to reciprocity *orientation* only.

<center>Reciprocal Relationships in the Workplace</center>

To test the proposed typology of reciprocity beliefs properly, it is necessary to examine reciprocal relationships with the organization (for both forms of exchange ideology) and with other individuals (for both forms of reciprocity orientation). If my expectations regarding the differential effects of Exchange Ideology and Negative Exchange Ideology are correct, then employees who are higher in Exchange Ideology should respond to organizational actions by increasing or decreasing the frequency of positive behaviours (e.g., citizenship behaviours) displayed, whereas employees higher in Negative Exchange Ideology should respond by increasing or decreasing the frequency of negative behaviours (e.g., workplace deviance) displayed. Similarly, employees higher in Positive Reciprocity Orientation should engage in more or fewer positive interpersonally-directed behaviours in response to another individual's actions, whereas employees higher in Negative Reciprocity Orientation should react by increasing or decreasing negative behaviours towards the same target. I also expect, based on the work of Mitchell and Ambrose (2007) described earlier, that employees will prefer to direct their

reciprocal behaviours toward the source of the original behaviour. For example, high positive-reciprocity employees would respond to supervisor social support by increasing helping behaviours toward the supervisor rather than the organization. I will test these propositions within the context of psychological contract breach and supervisor interactional justice. In the next section, I will present some general propositions for how each variable will act in conjunction with reciprocity beliefs.

Psychological Contract Breach

Psychological contracts are "individual beliefs, shaped by the organization, regarding terms of an exchange agreement between the individual and their organization" (Rousseau, 1995, p. 9). Employees are thought to perceive both implicit and explicit promises from the organization and derive expectations about their own and the organization's behaviour based on these promises. Psychological contract *breach* occurs when employees perceive that the organization has broken its promise or promises (Conway & Briner, 2005). Psychological contract breaches are a useful antecedent to study in this particular context because the contracts in question are thought to be held with the organization as a whole, rather than with one particular person in it (e.g., a supervisor; Conway & Briner, 2009). Recall that Eisenberger et al. (1986), in creating the concept of Exchange Ideology, expected that employees would ascribe characteristics to the organization and perceive themselves as being in exchange relationships with the organization itself. Similarly, psychological contract researchers expect employees to anthropomorphize the organization and credit or blame it for actions taken on its behalf. Given this, if it is in fact accurate that Exchange Ideology is focused on reciprocity with the organization itself, and not merely individuals within it, then its effects should moderate the relation between contract breach and various outcomes.

A recent meta-analysis by Zhao, Wayne, Glibkowski, and Bravo (2007) found that breach was associated with outcomes such as decreased job satisfaction, decreased commitment, higher turnover intentions, and lower performance. Because organizational citizenship behaviour and workplace deviance are behaviours directed at the organization, they are appropriate outcome variables for this study. That is, they represent two discretionary behaviours that employees might choose in order to reciprocate an organization's positive or negative actions.

Breach and organizational citizenship behaviours. Organ (1988) defined organizational citizenship behaviour (OCB) as "individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate, promotes the efficient and effective functioning of the organization (p. 4, as cited in Spitzmuller, Van Dyne, & Ilies, 2008). The discretionary aspect of OCBs makes these behaviours well suited for study in relation to reciprocity, since employees should feel more freedom to increase or decrease OCB as they see fit. Although there is some disagreement on the exact number of dimensions of OCB (e.g., LePine, Erez, & Johnson, 2002), many researchers distinguish between OCBs directed at the organization, such as adhering to informal rules devised to maintain order (OCB-O), and OCBs directed at other individuals, such as helping others who have been absent (OCB-I; Williams & Anderson, 1991). Because breach, as noted earlier, is expected to be attributed to actions on the part of the organization, I expect that individuals will prefer to increase or decrease organization-directed OCBs in order to reciprocate for a breach.

The effects of breach on OCBs have been investigated in a number of studies. Restubog, Bordia, and Tang (2007) found a correlation of -.58 between perceptions of breach and OCB-O. The meta-analysis by Zhao et al. (2007) found only a small average correlation between global measures of breach and OCBs ($r = -.16$), but they did not differentiate between OCB-O and

OCB-I. Turnley, Bolino, Lester, and Bloodgood (2003) studied the relation between OCB-O and psychological contract fulfillment. (This construct is arguably the opposite of breach since a lack of breach implies that the contract has been fulfilled or exceeded.) They found a correlation of .31 for pay-related contract fulfillment and .45 for relationship-related contract fulfillment. Robinson (1996) examined the effects of overall breach on civic virtue, a facet of OCB related to concern for the company's well-being, and found a correlation of -.25.

These findings all suggest that psychological contract breach is related to the performance of organizational citizenship behaviours. Exchange Ideology should be a significant moderator of this relation, however, since individuals who are higher in Exchange Ideology are concerned with the exchange of work effort for organizational actions. An individual who believes that his or her organization has kept or exceeded the promises it made, and who feels it is appropriate to adjust one's own actions in response to the organization's actions, is likely to feel a sense of obligation to the organization and increase his or her OCB-Os in turn. On the other hand, a person who is high in Exchange Ideology but who feels that the organization has broken its promises is likely to reduce the effort expended on behalf of the organization. That is, they should reduce their OCB-Os. In sum, Exchange Ideology should moderate the relation between contract breach and OCB-O such that increased breach should lead to decreased OCB-O only for individuals who are higher in Exchange Ideology. Negative Exchange Ideology, in contrast, should not serve as a particularly strong moderator here because individuals who feel that the organization has caused them harm should prefer to respond by harming the organization, rather than by reducing the amount of help offered.

Breach and workplace deviance. Workplace deviance is "voluntary behaviour that violates significant organizational norms and in so doing threatens the well-being of an

organization, its members, or both" (Robinson & Bennett, 1995, p. 556). Robinson and Bennett

argued that deviant behaviours could target individuals (i.e., interpersonal deviance) or

organizations (i.e., organizational deviance). Although challenges to this two-dimensional

configuration have been offered (e.g., Lee & Allen, 2002), a recent meta-analysis supports the

distinction (Berry, Ones, & Sackett, 2007). Although the consequences for individuals targeted

by deviant coworkers are substantial (e.g., Giacolone, Riordan, & Rosenfeld, 1997; O'Leary-

Kelly, Griffin, & Glew, 1996), my focus here is on organizational deviance. Workplace deviance

can have serious consequences for the organization: Estimates from 1990 suggest that between

one-third and three-quarters of employees engaged in theft or some other form of business abuse

(Harper, 1990), resulting in a loss of between five and ten billion dollars annually. More recent

estimates suggest the financial loss due to deviance could be as high as 50 billion dollars (Coffin,

2003) and that 95% of organizations experience employee theft (Case, 2000). Considerable

research has focused on antecedents of organizational deviance, and both organizational and

personal factors have been implicated (e.g., organizational justice [Aquino, Lewis, & Bradfield,

1999; Henle, 2005; Skarlicki & Folger, 1997] and conscientiousness [Berry et al.]).

The effects of psychological contract breach on deviance have been investigated in a

small number of studies. Bordia, Restubog, and Tang (2008) used employees' perceptions of

breach to predict personnel records of workplace offenses over the next 20 months. Breach was

significantly related to the number of both minor ($r = .38$) and major ($r = .41$) offenses.

Unfortunately, that study did not separate organizational and interpersonal deviance. In a second

study they focused on deviance directed at the organization. They did not find a direct correlation

between deviance and breach. However, breach was measured separately for the different types

of broken promises. They constructed a structural model using combinations of breach facets

(i.e., transactional and relational breaches) and mediators that did fit the data reasonably well. In their third study, Bordia et al. used a global measure of breach and found a significant correlation between it and organizational deviance ($r = .19$). However, contrary to my expectations, the correlation was stronger for interpersonal deviance ($r = .31$). That said, this effect was not replicated in another study. Restubog et al. (2007) found the correlation between breach and organizational deviance to be .39, whereas the correlation between breach and interpersonal deviance was .28.

It is not surprising that breach is related to both organizational and interpersonal deviance. However, I expect that Negative Exchange Ideology will serve as a moderator only for breach and organizational deviance, not for breach and interpersonal deviance. Because Negative Exchange Ideology is concerned with reciprocity with the *organization*, and breach is theoretically attributed to actions on the part of the organization, employees who are higher in Negative Exchange Ideology might choose to react to a broken promise by retaliating against the organization. One can imagine employees reacting negatively and perhaps directing anger at other people, but these reactions will not be predicted by their reciprocity concerns at the organizational level. This is similar to the Mitchell and Ambrose (2007) study described earlier: Experiencing abusive supervision was related to both supervisor-directed deviance and organizational deviance, but Negative Reciprocity Orientation only served as a moderator of the abusive supervision – supervisor-directed deviance relation. Abused employees who were higher in negative reciprocity did not try to "pay back" the organization for the actions of the supervisor, suggesting that these employees seem to be making decisions about who is responsible for the harm done and reacting accordingly.

In general, I expect that the relation between psychological contract breach and organizational deviance will be moderated by Negative Exchange Ideology such that as perceptions of breach increase, employees who are higher in Negative Exchange Ideology will be more likely to react with organizational deviance. When breach perceptions are low (or perceptions of contract fulfillment are high), however, employees who are higher in Negative Exchange Ideology will have no reason to reciprocate with negative actions and thus will be less likely to engage in deviance. Exchange Ideology, on the other hand, is not expected to serve as a particularly strong moderator of this relation since employees who are higher in Exchange Ideology should be more concerned with increasing or decreasing positive behaviours (e.g., OCBs) than with engaging in negative behaviours.

Supervisor Interactional Justice

Three types of organizational justice are generally presented in the literature: distributive, procedural, and interactional. Distributive justice concerns fairness issues arising from the allocation of resources such as pay and bonuses (Adams, 1965; Deutsch, 1975), and procedural justice is concerned with issues arising from *how* decisions are made about the distribution of resources (Folger & Konovsky, 1989). These types of justice are, arguably, primarily attributable to the organization rather than any particular individual in it (e.g., Cohen-Charash & Spector, 2001; Masterson, Lewis, Goldman, & Taylor, 2000; Skarlicki & Folger, 1997).

Interactional justice, defined as the perceived fairness of interpersonal communication (Bies & Moag, 1986), on the other hand, is easily attributed to a particular person and thus is well suited for research involving Positive and Negative Reciprocity Orientations, which are concerned with reciprocal actions toward an individual. In fact, Cohen-Charash and Spector (2001) noted that interactional justice "is considered to be related to cognitive, affective, and

behavioural reactions toward ... *the direct supervisor or source of justice*" (p. 281, emphasis in original). Interactional justice perceptions are thought to be based on four rules: truthfulness, justification, respect, and propriety (Colquitt, Greenberg, & Zapata-Phelan, 2005). In short, authority figures should be open and honest, should provide explanations of outcomes, should avoid asking inappropriate questions or making prejudicial statements, and should treat individuals with respect and avoid acting rudely. Meta-analytic results show that interactional justice is associated with work performance ($r = .16$), job satisfaction ($r = .41$), satisfaction with supervisor ($r = .52$ in field studies), affective commitment ($r = .38$), and many other organizationally-relevant variables (Cohen-Charash & Spector). Again, in order to assess the moderating effect of reciprocity beliefs, I am focusing on deviance and organizational citizenship behaviours as outcome variables. In this section, however, the interpersonally-focused aspects of these behaviours (i.e., interpersonal deviance and interpersonal OCB) were measured.

     Justice and organizational citizenship behaviours. As noted earlier, OCBs are often split into two separate dimensions: those directed at the organization and those directed at individuals. Interpersonally-directed OCBs are also often broken down by the specific target of the OCB: OCBs directed at coworkers (e.g., Ng & Van Dyne, 2005) and OCBs directed at the supervisor (e.g., Masterson et al., 2000). Since interactional justice is often thought to come from the supervisor, supervisor-focused OCBs are the focus here. Kamdar and Van Dyne (2007) examined supervisor-focused OCBs such as helping the supervisor with her or her own work and predicted that norms of reciprocity would make employees feel obligated to reciprocate for positive supervisor behaviors by increasing OCBs. This was supported by the data; the correlation between supervisor behaviors and helping the supervisor was .42.

Other researchers have looked specifically at the relation between interactional justice and supervisor-focused helping behaviours. Malatesta and Byrne (1997, as cited in Lavelle, Rupp, and Brockner, 2007) found that interactional justice predicted supervisor-focused OCBs, and Rupp and Cropanzano (2002) found that interactional justice originating from the supervisor was significantly and positively related to supervisor-focused OCB ($r = .42$). In short, when supervisors are perceived to be fair and honest with subordinates, those subordinates are likely to respond by helping the supervisor in various ways.

This relationship is likely to be particularly strong for employees who are higher in Positive Reciprocity Orientation. Recall that these individuals feel that they should repay people who have helped them, or reduce that help when they have been harmed. Positive Reciprocity Orientation, then, should act as a moderator between supervisors' interactional justice and subordinates' OCBs directed at that same supervisor. At higher levels of justice, subordinates higher in Positive Reciprocity Orientation should increase their helping behaviours accordingly. At lower levels of justice, however, these employees are likely to feel unwilling to help a person who has done them harm and should decrease their supervisor-focused OCBs.

Negative Reciprocity Orientation should not serve as a strong moderator in this relation since employees who are high in negative reciprocity should be more likely to act in a way that purposely harms the perpetrator, rather than simply reducing the helping behaviours displayed. Employees might also choose to respond to (in)justice by increasing or decreasing OCBs aimed at the organization or coworkers for other reasons such as anger, but this should be no more or less likely for individuals higher in Positive Reciprocity Orientation, since they should be concerned with repaying the person who is directly responsible for the (in)justice.

Justice and workplace deviance. Many studies have been conducted to determine the effects of interactional justice on workplace deviance. Aquino et al. (1999) argued that the type of injustice that produces the majority of deviant responses is interactional injustice, and multiple meta-analyses have shown a significant relation between interactional justice and deviance. Berry et al. (2007) found an average correlation of -.19 between interactional justice and interpersonal deviance, and Colquitt, Conlon, Wesson, Porter, and Ng (2001) found an average correlation of -.35 between interactional justice and overall deviance. None of these studies examined supervisor-directed deviance specifically. Supervisor-directed deviance consists of interpersonally deviant behaviours targeted at the supervisor rather than coworkers or other individuals (Mitchell & Ambrose, 2007). When faced with interactional injustice, individuals who are higher in Negative Reciprocity Orientation should prefer to retaliate directly against the person who caused the harm, and will likely choose to act deviantly towards the source of that injustice, namely the supervisor. Several studies have shown that negative treatment from a supervisor can lead to retaliation against that same supervisor: Jones (2003, as cited in Mitchell & Ambrose) found that interactional injustice was related to retaliation against the supervisor, and Mitchell and Ambrose found that abusive supervision was related to supervisor-directed deviance. In addition, a very recent meta-analysis by Hershcovis and Barling (2010) found an average correlation of .62 between supervisor aggression and interpersonal deviance directed at the supervisor. These findings all support the idea that victims of injustice tend to retaliate against the perpetrator. I would argue that employees who are higher in Negative Reciprocity Orientation should be particularly likely to do so since they believe that harming a person who has harmed them is appropriate.

In general, I expect that the relation between interactional justice and supervisor-directed deviance will be stronger for individuals who are higher in Negative Reciprocity Orientation. These individuals will be more likely to react to injustice with deviant behaviours targeted at the supervisor, but no more likely to behave deviantly towards the organization or other coworkers under conditions of injustice. That is, Negative Reciprocity Orientation will moderate the relation between supervisor injustice and supervisor-directed deviance, but not other outcomes that could arise from interactional unfairness. When interactional justice perceptions are high, individuals with negative reciprocity orientations should engage in less supervisor-directed deviance since they have no reason to retaliate. Individuals with high Positive Reciprocity Orientations should be more concerned with increasing or decreasing positive behaviours (i.e., OCBs directed at the supervisor) than committing deviant acts in the face of injustice, and so positive reciprocity should not act as a strong moderator of this relation.

The Current Study

The goals of the current study were twofold: First, I developed and evaluated a measure of Negative Exchange Ideology. Second, I administered this new measure along with the existing measures of reciprocity beliefs (i.e., Exchange Ideology, Negative Reciprocity Orientation, and Positive Reciprocity Orientation) to two different samples in order to evaluate the moderating effects of each of these variables on outcomes such as workplace deviance and organizational citizenship behaviours. The current chapter provided an overview of the main variables of interest. Chapter 2 describes the steps involved in developing a measure of Negative Exchange Ideology, along with the results of a pilot study. Chapter 3 describes a study that serves as an initial test of the proposed factor structure of the reciprocity beliefs measure, Chapter 4 describes a field study to test the proposed effects of each form of reciprocity belief on work outcomes,

and Chapter 5 describes a scenario study to further explore the construct and convergent validity of reciprocity beliefs. Finally, in Chapter 6, the results are summarized, and strengths, limitations, and future directions are discussed.

Chapter 2: Measure Development

The development of the measure of Negative Exchange Ideology followed the relevant

steps outlined in Aguinis, Henle, and Ostroff (2001). Consistent with a deductive approach to

measure development, I first defined the construct. Second, a measure plan, which includes

information such as the type of items to be used, the approximate number of items, and

administration directions, was created. Third, items were written in accordance with the measure

plan. Fourth, a pilot study was conducted wherein participants reviewed the items for clarity and

content. Finally, the best-performing items from the pilot study were retained for use in a

confirmatory factor analysis (which is explained in Chapter 3).

Defining Negative Exchange Ideology

To define Negative Exchange Ideology, it is first necessary to review the definitions of

the other three types of reciprocity beliefs. Positive Reciprocity Orientation is defined as the

tendency to return positive treatment for positive treatment, whereas Negative Reciprocity

Orientation is defined as the tendency to return negative treatment for negative treatment

(Cropanzano & Mitchell, 2005). Although it is not specifically mentioned in any of the articles

that examine reciprocity orientation, the items used to measure these constructs target only other

individuals (e.g., If someone gives me a gift, I feel obligated to get them a gift [Eisenberger et

al., 2004], see Appendix A for the other items). According to Eisenberger et al. (1986),

Exchange Ideology is the strength of an employee's belief that work effort should depend on

treatment by the organization. Scott and Colquitt (2007) added that individuals higher in

Exchange Ideology "adhere strongly to the norm of reciprocity, believing they should help those

who help them" (p. 296).

Negative Exchange Ideology is thought to be independent of, but conceptually opposite to, Exchange Ideology: Whereas some employees might feel it is appropriate to reciprocate work effort or other positive behaviors for positive treatment by the organization, others might feel it is appropriate to reciprocate poor treatment for poor treatment. (Note that because these constructs are thought to be independent of each other, an employee could be high or low on both forms of exchange ideology.) The proposed definition for Negative Exchange Ideology, then, is the belief that it is appropriate to react to negative treatment from the organization with negative treatment of one's own. An employee who is higher in Negative Exchange Ideology should feel it is acceptable to harm the organization if he or she perceives the organization acted in a negative manner without just cause.

Measure Plan and Item Generation

Hinkin (1998) recommended that measures be kept as short as possible in order to reduce participant fatigue or boredom, but long enough that reliability is not compromised. In general, he suggested using four to six items per construct in a scale. Most authors (e.g., Aguinis et al., 2001; Hinkin) recommend writing at least twice as many items as necessary since many will be dropped during the validation process. As such, I wrote 16 items that attempted to measure Negative Exchange Ideology. In accordance with general item development guidelines (e.g., Hinkin), items were kept short and simple, and were consistent with the definition. I also used language that most respondents could interpret easily. Double-barrelled items were avoided, and reading level was assessed using the Flesch-Kincaid readability scores available in Microsoft Word. Appendix B contains the full list of generated items.

To be consistent with the other measures of reciprocity beliefs, items will be rated on a seven-point Likert-type scale, ranging from Strongly Disagree (1) to Strongly Agree (7).

Respondents' level of Negative Exchange Ideology will be the mean response to the items in the scale.

Pilot Study

Before the Negative Exchange Ideology measure was administered to a larger sample of respondents, I asked six I/O graduate students to assess the content validity of the items. Following Hinkin (1998), each judge was given the Negative Exchange Ideology items along with the items measuring the other three types of reciprocity beliefs. They were given definitions for each construct, and then asked to sort all of the items into the category that seemed most appropriate. They were also given an "unclassified" category for items that did not seem to fit any of the definitions. During this phase, the respondents were also asked to review the items carefully and point out any issues with wording or clarity.

Results. Hinkin (1998) recommended using an agreement index to determine whether items should be retained; if at least 75% of respondents classified an item correctly, it should be retained for the next phase of validation. Of the 16 items written to reflect Negative Exchange Ideology, nine were correctly identified by at least five out of six judges (83%) as belonging to that category and consequently were retained for further examination. The Flesch-Kincaid readability score for these items was 9.6, indicating that respondents need at least a ninth grade education to properly interpret the items. The complete Negative Exchange Ideology scale is presented in Table 1. Judges' agreement was also calculated for the other three reciprocity beliefs scales. All ten Positive Reciprocity Orientation items were correctly categorized and two Negative Reciprocity Orientations items were incorrectly categorized as belonging to Positive Reciprocity Orientation by one judge. For Exchange Ideology, all six judges correctly classified five of the eight items. The other three items did not fare as well; one was incorrectly classified

Table 1. The nine Negative Exchange Ideology items retained for further study.

1. If your company treats you well, you should not treat the company badly

2. If your company treats you badly, you should treat the company badly in return

3. An employee who is treated badly by a company should find a way to get revenge

4. If an organization's policies are unfair, employees should find a way to get revenge

5. Employees should never try to harm the organization, regardless of the organization's behaviour*

6. Most employees who treat the organization badly are just trying to get even with the organization

7. The right thing to do when a company treats its employees unfairly is to get revenge

8. It is OK for an employee to steal from an organization that underpays its employees

9. If an employee is breaking company rules, it's probably because the company did something to deserve it

* Item was reverse-keyed

by one judge and two other items were incorrectly classified by two judges. In each case, judges believed the Exchange Ideology item was more reflective of Negative Exchange Ideology.

Summary

This chapter described the initial stages of the development of a measure of Negative Exchange Ideology. A specific definition of the construct was created, and recommendations by Aguinis et al. (2001) and Hinkin (1998) were followed during item generation. A pilot study showed that a reasonable number (9/16) of generated items were successfully sorted into the Negative Exchange Ideology category. In the next chapter, I describe the results of a confirmatory factor analysis of these items along with the items measuring Exchange Ideology, Positive Reciprocity Orientation, and Negative Reciprocity Orientation.

Chapter 3: Evaluation of the Negative Exchange Ideology Measure

The first purpose of this study is to examine the psychometric properties (e.g., item variance, reliability) of the new Negative Exchange Ideology measure developed in Chapter 2.

The second purpose is to evaluate the factor structure proposed in Chapter 1. When responses are analyzed in a confirmatory factor analysis, I expect four factors to emerge reflecting the four reciprocity beliefs measures: Negative Exchange Ideology, Exchange Ideology, Negative Reciprocity Orientation, and Positive Reciprocity Orientation.

To ensure that a four-factor model is in fact the best structure, I tested three other models to determine which provides the best fit for the data. First, I tested a one-factor solution where all reciprocity beliefs reflect a single underlying factor. That is, participants might simply be concerned with reciprocity in general, and may not distinguish between positive and negative or organizational and individual targets. This seems unlikely, however, as both Eisenberger et al. (2004) and Perugini et al. (2003) found separate factors composed of positive and negative reciprocity orientation items. Another possibility is a two-factor solution based on individual versus organizational targets of reciprocity, but again this is unlikely because of the distinction between positive and negative reciprocity beliefs found in previous studies. A third possibility is that all reciprocity beliefs that are more reflective of positive reciprocity norms (i.e., Positive Reciprocity Orientation and Exchange Ideology) load on one factor and all negatively-oriented reciprocity beliefs (i.e., Negative Reciprocity Orientation and Negative Exchange Ideology) load on a second factor. It is possible that individuals make no distinction between various targets of reciprocity expectations, and thus they will react the same way to an individual as to an organization. However, similar to how individuals can be committed to the organization, a workgroup, a supervisor, a career, or many other foci (e.g., Becker, 1992; Meyer & Allen, 1997),

they might also choose different entities as targets of reciprocity and react differently to those entities' actions. Employees might, for instance, feel it is wrong to retaliate against the organization but not another individual, or vice versa. Alternatively, they might feel it is appropriate to respond to positive organizational actions by trying to help out the organization, but not react the same way to an individual. If this is the case, then a two-factor solution with positive versus negative reciprocity beliefs will not be supported, and a four-factor structure will be most appropriate. Accordingly, my hypothesis is as follows:

> Hypothesis 1: A four-factor structure, composed of Positive Reciprocity Orientation, Negative Reciprocity Orientation, Exchange Ideology, and Negative Exchange Ideology, will be the best fit for the data as compared to a one-factor structure or either of the two-factor structures explained above.

Method

Participants

Three hundred and sixteen employed participants were recruited using StudyResponse, a service offered by Syracuse University that allows researchers to reach adult participants from across the United States and Canada. Studies using StudyResponse samples have been published in top journals (e.g., Harris, Anseel, & Lievens [2008], Journal of Applied Psychology; Piccolo & Colquitt [2006], Academy of Management Journal). Fourteen participants did not provide usable data and thus were removed from the sample, leaving 302 participants (58.3% male, mean age = 35.57, SD = 9.177) who represented a wide range of industries and job types, (see Table 2 for a breakdown of this information). Over 92% of participants reported that they were employed full-time, and more than 88% of participants were working in organizations employing more than 100 people. The majority of participants (77%) had at least some post-secondary education.

Table 2. Demographic Information for Study Response Sample (N = 302)

Job Type	%	Industry	%
Architecture and engineering	3.6	Accommodation or food services	1.3
Arts, design, media, entertainment, sports	1.7	Administrative and support services	3.3
Building and grounds cleaning and maintenance	.7	Arts, entertainment, and recreation	4.3
Business and financial operations	9.9	Construction	4.0
Community and social services	1.3	Educational services	6.9
Computer and mathematical	8.6	Finance and insurance	6.9
Construction and extraction	3.6	Government	4.0
Education, training, and library	5.6	Health care and social assistance	5.9
Farming, fishing, and forestry	1.3	Information	4.0
Food preparation and service related	3.6	Management of companies and enterprises	5.3
Healthcare practitioners, technical	2.3	Manufacturing	27.7
Healthcare support	1.3	Mining, quarrying, oil and gas extraction	1.0
Installation, maintenance, repair	1.7	Professional, scientific, technical services	7.6
Legal	1.7	Real estate, rental and leasing	.7

Life, physical, and social science	.3	Retail trade	3.6
Management	30.0	Self-employed	2.3
Military specific	.7	Transportation and warehousing	4.3
Office and administrative support	8.6	Utilities	.3
Personal care and service	1.3	Wholesale trade	1.7
Production	1.3	Other	4.6
Protective service	.7		
Sales and related	4.3		
Transportation, material moving	.7		
Other	4.6		

Procedure

Participants were contacted using the StudyResponse protocol, whereby an email is sent to pre-screened participants inviting them to participate in the study. After completing the informed consent form, each participant was directed to the study website and asked to complete the reciprocity beliefs measures and the demographic items. Finally, participants were directed to the debriefing page. The entire study was conducted online. Participants received a $5 dollar gift card for their participation.

Measures

Demographics. Participants were asked to provide information about their age, gender, type of job, size of organization, job status (full- or part-time), and tenure.

Reciprocity Beliefs. Positive and Negative Reciprocity Orientation were measured using the scales developed by Eisenberger et al. (2004). Positive Reciprocity Orientation is measured with ten items and Negative Reciprocity Orientation is measured with 14 items. Exchange Ideology was measured using the scale by Eisenberger, Armeli, Rexwinkel, Lynch, and Rhoades (2001). Negative Exchange Ideology was assessed using the items developed in Chapter 2. All items measuring reciprocity beliefs were rated on a seven-point Likert-type scale ranging from Strongly Disagree (1) to Strongly Agree (7).

<div align="center">Results</div>

Evaluation of the Negative Exchange Ideology Measure

The first step in evaluating the Negative Exchange Ideology measure was to examine its psychometric properties. In accordance with commonly cited measure development techniques (e.g., Aguinis et al., 2001), items were analyzed in terms of item-total correlations, means, and

standard deviations. Items with the highest item-total correlations were selected until adding additional items either decreased scale reliability or no longer increased the reliability.

Cronbach's Alpha for the full nine-item Negative Exchange Ideology scale was .876. Two items with negative item-total correlations were deleted from analyses. Hinkin (1998) recommended examining the "Cronbach's Alpha if Item Deleted" results to further refine new scales. This table showed that one item, "Most employees who treat the organization badly are just trying to get revenge," was decreasing the reliability of the scale slightly and thus this item was dropped, resulting in a reliability of .952. This item was unlike the other items in that instead of assessing attitudes or the "right" response to a perceived slight, it asked participants to make judgment calls about the meaning of others' behaviors, and thus may have been tapping a slightly different concept than originally intended. The remaining six Negative Exchange Ideology scale items showed good variability, with means ranging from 3.29 to 4.02 and standard deviations ranging from 1.62 to 2.00. An analysis of missing data for these items found no unusual patterns; the most responses missing from any item was four.

Evaluation of the Proposed Factor Structure

Once the items that decreased the reliability of the scale were dropped from the Negative Exchange Ideology measure, the next step was to evaluate the factor structure. Because there is some theory underlying the proposed factor structure, confirmatory factor analysis (CFA) is more appropriate here than exploratory factor analysis (Bobko, 1990).

Confirmatory factor analyses were conducted using *Equations* (EQS; Bentler, 2003). As noted earlier in this chapter, four competing models were tested: A one-factor model composed of all types of reciprocity beliefs, a two-factor model composed of organization-as-target and individual-as-target reciprocity beliefs, a two-factor model composed of positive and negative

reciprocity beliefs, and a four-factor model composed of each proposed type of reciprocity

belief.

In all cases, models were assessed using the most accepted statistics (root mean square

error of approximation [RMSEA] and Comparative Fit Index [CFI]; Kline, 2005; Williams,

Ford, & Nguyen, 2004). The first round of analyses showed that none of the proposed models

provided an acceptable fit for the data (see Table 3).

Given the lack of support for any of the proposed models, I returned to the item analysis

stage and examined the item-total correlations for the other three types of reciprocity belief

(Exchange Ideology, Positive Reciprocity Orientation, and Negative Reciprocity Orientation).

For Exchange Ideology, four of the eight items had negative or very low (i.e., well below the .40

cutoff recommended by DeVellis, 1991) item-total correlations. Deleting these four items raised

the reliability of this scale considerably, from .67 to .84. For Negative Reciprocity Orientation,

two of the 14 items had negative item-total correlations. Deleting these two items raised the

reliability of the scale slightly, from .93 to .97. The ten items used to measure Positive

Reciprocity Orientation were all strongly positively correlated with the scale total. For both

scales, poorly performing items were deleted in an iterative process, with the worst item dropped

and the analysis run again, in order to ensure that item-total correlations did not change

substantially as each item was deleted.

An examination of the content of the items dropped from analyses suggests that, for

Exchange Ideology, the poorly performing items either targeted very specific aspects of

treatment by the organization ("An employee's work effort should not depend on the fairness of

his or her pay") or were somewhat abstract in their meaning ("Employees should not care about

the organization that employs them unless that organization shows that it *cares* about its

Table 3. CFA Goodness-of-fit Indicators for Reciprocity Orientation Scales.

Model	χ^2	Satorra-Bentler χ^2	df	CFI	RMSEA
One Factor	4308.15	3402.72	665	.65	.12
Two Factors (Individual vs. Organizational)	3363.78	2712.29	664	.74	.11
Two Factors (Positive vs. Negative)	3738.15	3119.42	664	.69	.12
Four Factors	2235.38	1823.60	659	.85	.08

Note. N =275. χ^2 = Chi-Square; Satorra-Bentler χ^2 = Satorra-Bentler Chi-Square; df = degrees of freedom; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation.

employees", "An employee should work as hard as possible no matter what the organization

thinks of his or her efforts", "If an organization does not *appreciate* an employee's efforts, the

employee should still work as hard as he or she can", emphasis added) relative to the items that

performed well, which refer to actual outcomes or tangible types of treatment, such as being

treated badly or receiving, for example, a less specific outcome such as "a pay increase,

promotion, or other benefit." These more abstract items were added to the original Eisenberger et

al. (1986) measure in Eisenberger et al. (2001) and on reflection may not have fit with the

original conceptualization of exchange ideology, which was concerned with the trade of work

effort for organizational treatment, and which will be used for this dissertation due to its focus on

actual behaviors rather than intangibles.

 For Negative Reciprocity Orientation, the two dropped items were the only reverse-keyed

items in the scale and participants might simply have not noticed the subtle change in language.

Interestingly, Eder et al. (2006) had the same issue with these two items and also dropped them

from analyses.

 Once these six items were dropped from the analyses, I performed the confirmatory

factor analyses again using robust maximum likelihood estimation. Results are shown in Table 4.

In accordance with Hypothesis 1, the RMSEA and CFI both met minimum criteria (i.e., below

.08 for RMSEA and above .90 for CFI) for the proposed four-factor model. Furthermore, as

indicated by the Satorra-Bentler scaled chi-square difference test (Satorra & Bentler, 2001), the

four-factor model fit the data significantly better than did the single-factor model, χ^2 diff (6) =

531.10, $p < .001$, the two-factor model composed of individual- vs. organizationally-directed

items, χ^2 diff (5) = 753.98, $p < .001$, and the two-factor model composed of positive vs. negative

reciprocity beliefs items, χ^2 diff (5) = 551.75, $p < .001$.

Table 4. CFA Goodness-of-fit Indicators for the Reciprocity Orientation Scales After Deletion of Unreliable Items

Model	χ^2	Satorra-Bentler χ^2	df	CFI	RMSEA
One Factor	3602.40	2775.29	464	.698	.134
Two Factors (Individual vs. Organizational)	2673.47	2110.83	463	.785	.113
Two Factors (Positive vs. Negative)	2962.16	2431.64	463	.743	.124
Four Factors	1515.34	1199.26	458	.903	.076

Note. N =277. χ^2 = Chi-Square; Satorra-Bentler χ^2 = Satorra-Bentler Chi-Square; df = degrees of freedom; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation.

The Positive Reciprocity Orientation, Negative Reciprocity Orientation, Exchange Ideology, and Negative Exchange Ideology items which were retained for further analysis are listed in Table 5. Means, standard deviations, alpha reliabilities, and scale intercorrelations are provided in Table 6.

Discussion

The purpose of this study was to evaluate the structure of the four reciprocity beliefs scales. Although the first attempt at confirmatory factor analysis was unsuccessful, the deletion of several poorly-performing items from the published scales of Exchange Ideology and Negative Reciprocity Orientation resulted in an acceptable model fit for the proposed four-factor model. The fit statistics were in the lower range of acceptability according to frequently cited guidelines (Hu & Bentler, 1999), but the four-factor model was significantly better than the one-factor model and both of the two-factor models tested, and as such the four constructs were carried forward into the next phases of analysis.

The current data were entirely self-report, suggesting that common method bias could be a problem. However, these constructs are best suited to self-report measures, and the rejection of the one-factor model lends support to the notion that response biases are not responsible for the results of this study. In addition, the data were collected in an online, anonymous manner, reducing the likelihood that social desirability was an issue for respondents. It was made clear in both the informed consent and the debriefing letters that responses given were completely confidential and anonymous. Though participants were required to enter a StudyResponse ID number, this was for compensation purposes only.

The next step in the validation of the Negative Exchange Ideology measure is to administer it, along with the other reciprocity beliefs measures, to a field sample in order to

Table 5. Reciprocity items retained for further analysis.

Items

Negative Exchange Ideology

1. If your company treats you badly, you should treat the company badly in return

2. An employee who is treated badly by a company should find a way to get revenge

3. If an organization's policies are unfair, employees should find a way to get revenge

4. The right thing to do when a company treats its employees unfairly is to get revenge

5. It is OK for an employee to steal from an organization that underpays its employees

6. If an employee is breaking company rules, it's probably because the company did something to deserve it

Exchange Ideology

1. Employees should only go out of their way to help their organization if it goes out of its way to help them

2. An employee who is treated badly by a company should work less hard

3. An employee's work effort should depend partly on how well the organization deals with his or her desires and concerns

4. An employee should only work hard if his or her efforts will lead to a pay increase, promotion, or other benefits

Negative Reciprocity Orientation

1. If someone dislikes you, you should dislike them

2. If a person despises you, you should despise them

3. If someone says something nasty to you, you should say something nasty back

4. If a person wants to be your enemy, you should treat them like an enemy

5. If someone treats me badly, I feel I should treat them even worse

6. If someone treats you badly, you should treat that person badly in return

7. If someone important to you does something negative to you, you should do something even more negative to them

8. A person who has contempt for you deserves your contempt

9. If someone treats you like an enemy, they deserve your resentment

10. When someone hurts you, you should find a way they won't know about to get even

11. You should not give help to those who treat you badly

12. If someone distrusts you, you should distrust them

Positive Reciprocity Orientation

1. If someone does me a favour, I feel obligated to repay them in some way

2. If someone does something for me, I feel required to do something for them

3. If someone gives me a gift, I feel obligated to get them a gift

4. I always repay someone who has done me a favour

5. I feel uncomfortable when someone does me a favour which I know I won't be able to return

6. If someone sends me a card on my birthday, I feel required to do the same

7. When someone does something for me, I often find myself thinking about what I have done for them

8. If someone says something pleasant to you, you should say something pleasant back

9. I usually do not forget if I owe someone a favour, or if someone owes me a favour

10. If someone treats you well, you should treat that person well in return

Table 6. Means, standard deviations, and intercorrelations of reciprocity beliefs scales.

	Mean	SD	1	2	3	4
1. NEI	3.59	1.70	(.95)			
2. EI	4.38	1.34	.73**	(.84)		
3. NRO	3.59	1.58	.73**	.56**	(.97)	
4. PRO	5.19	.93	.02	.16**	-.03	(.89)

Note. Alpha reliabilities are in parentheses. N = 298 – 302. Correlations marked with ** are significant at $p < .01$.

determine the interactive effects of reciprocity and the work situation on deviance and

citizenship behaviors.

Chapter 4: Field Study

The first purpose of this study is to confirm the four-factor solution found in the previous study examining reciprocity beliefs (Positive and Negative Reciprocity Orientation, Exchange Ideology, and Negative Exchange Ideology) in a second sample of working adults. The second purpose of this study is to examine whether the four types of reciprocity beliefs interact with situational variables (i.e., psychological contract breach and supervisor interactional justice) to predict work outcomes such as deviance and citizenship behaviors. The relevant literature on each of these variables was reviewed in Chapter 1 and will not be repeated here. As such, I will simply present my specific hypotheses for this portion of the dissertation and then outline the proposed methods.

The target of the reciprocal actions was also investigated in this study. If individuals who are higher in reciprocity beliefs do in fact prefer to reciprocate towards the person or organization responsible for the original act, then their reciprocal acts should be targeted at that entity. Angry responses to an injustice or contract breach are possible, and might result in some deviance targeted at other individuals or entities, but this should be no more or less likely for high reciprocity individuals than for low reciprocity individuals. Likewise, one might feel particularly content with one's job when a promise is kept or exceeded, or when one is treated particularly well by a supervisor, and could increase OCBs or reduce deviance targeted at others as a result, but again this should not be moderated by reciprocity beliefs. In order to test this, deviance and OCBs targeted at coworkers were also measured in this study.

First, based on the review of psychological contract breach outcomes presented earlier, my hypotheses are as follows:

Hypothesis 1a: The relation between psychological contract breach and organizational deviance will be moderated by Negative Exchange Ideology such that as Negative Exchange Ideology increases, the relation between breach and organizational deviance will become stronger and more positive.

Hypothesis 1b: Negative Exchange Ideology will not moderate the relation between psychological contract breach and coworker-directed deviance.

Hypothesis 2a: The relation between psychological contract breach and OCB-O will be moderated by Exchange Ideology such that as Exchange Ideology increases, the relation between breach and OCB-O will become stronger and more negative.

Hypothesis 2b: Exchange Ideology will not moderate the relation between psychological contract breach and coworker-directed OCBs.

Next, based on the review of the literature pertaining to interactional justice described earlier, I predict the following:

Hypothesis 3a: The relation between supervisor interactional justice and supervisor-directed deviance will be moderated by Negative Reciprocity Orientation such that as Negative Reciprocity Orientation increases, the relation between justice and supervisor-directed deviance will become stronger and more negative.

Hypothesis 3b: Negative Reciprocity Orientation will not moderate the relation between interactional justice and coworker-directed deviance.

Hypothesis 4a: The relation between supervisor interactional justice and OCB-S will be moderated by Positive Reciprocity Orientation such that as Positive

Reciprocity Orientation increases, the relation between justice and OCB-S will

become stronger and more positive.

Hypothesis 4b: Positive Reciprocity Orientation will not moderate the relation

between interactional justice and coworker-directed OCBs.

Method

Participants

Participants were recruited using the StudyResponse participant pool. Two hundred and

forty employed participants began the survey, but 46 were deleted to due extreme amounts of

missing data, patterns of random responding, or having a completion time of under five minutes.

The remaining sample of 194 participants was 61.3% male and had a mean age of 37.01 years

($SD = 10.34$). Eighty nine percent of the sample was employed full-time, and mean job tenure

was 7.68 years ($SD = 6.84$). Respondents were from a wide range of job types and industries (see

Table 7 for a breakdown of this information).

Procedure

Following the StudyResponse protocol an email was sent to pre-screened participants

inviting them to participate in a given study, outlining their compensation (a $5.00 gift card) and

informed consent information. Once participants registered to complete the survey, they were

directed to another web site containing the questionnaire.

Measures

Demographics. Participants were asked to provide information about age, gender, type of

job, size of organization, job status (full- or part-time), and tenure.

Reciprocity Beliefs. Negative Reciprocity Orientation was measured with 12 items from

the Eisenberger et al. (2004) scale, Positive Reciprocity was measured with the full 10 items

Table 7. Participant job type and industry (N = 194)

Job Type	%	Industry	%
Architecture and engineering	2.1	Accommodation or food services	1
Arts, design, media, entertainment, sports	4.1	Administrative and support services	5.2
Building and grounds cleaning and maintenance	.5	Arts, entertainment, and recreation	2.1
Business and financial operations	8.8	Construction	4.1
Community and social services	.5	Educational services	10.3
Computer and mathematical	7.2	Finance and insurance	5.2
Construction and extraction	2.1	Government	4.6
Education, training, and library	8.8	Health care and social assistance	11.3
Food preparation and service related	1.5	Information	4.1
Healthcare practitioners, technical	3.1	Management of companies and enterprises	3.6
Healthcare support	6.7	Manufacturing	26.8
Installation, maintenance, repair	1.5	Mining, quarrying, oil and gas extraction	1.0
Legal	4.1	Professional, scientific, technical services	5.7
Life, physical, and social science	1.5	Real estate, rental and leasing	1.0

Management	23.2	Retail trade	2.6
Office and administrative support	10.3	Self-employed	2.1
Personal care and service	.5	Transportation and warehousing	3.6
Production	4.1	Wholesale trade	3.1
Sales and related	5.7	Other	2.1
Transportation, material moving	1.5		
Other	2.1		

from Eisenberger et al. (2004), and Exchange Ideology was measured with four items from the

Eisenberger et al. (2001) scale. Negative Exchange Ideology was measured with the six items

retained in the confirmatory factor analysis as described in Chapter 3. Respondents used a seven-

point Likert-type scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). For both

Exchange Ideology and Negative Reciprocity Orientation, the full scales as originally published

were administered to confirm that the poorly-performing items from Chapter 3 were not dropped

as a result of sample-specific error. In each case, the same items that had low item-total

correlations in Chapter 3 had equally low item-total correlations here and thus were not included

in the analyses.

   Psychological Contract Breach. A slightly modified global measure of psychological

contract breach developed by Robinson and Morrison (2000) was used for this study (see

Appendix C for the items). The original scale used "My employer" as the focus of each item, but

there was a chance that participants could interpret this as referring to a supervisor and/or the

organization. Because of this, I changed the wording from "My employer" to "My organization"

to clarify the source of the psychological contract. Each of the five items on the measure was

scored using a five-point Likert-type scale ranging from Strongly Disagree (1) to Strongly Agree

(5).

   Supervisor Interactional Justice. Fourteen items from the Perceptions of Fair

Interpersonal Treatment Scale (Donovan, Drasgow, & Munson, 1998) were used to measure

supervisor interactional justice (see Appendix D). Though the original version of this scale asked

participants to rate whether a behavior had occurred (yes/no/not sure), other researchers have

asked respondents to rate the extent to which they agree with each statement on seven-point

Likert-type scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree) (e.g., Inness, Barling,

& Turner, 2005). The Likert-type response format was used in the current study. Four coworker-focused items (e.g., Coworkers argue with each other) were dropped from the scale.

Organizational citizenship behavior. OCBs directed at the supervisor were measured using a modified version of a measure developed by Malatesta (1995, as cited in Rupp & Cropanzano, 2002). In the original version supervisors rated their subordinates' supervisor-directed helping behaviour. However, to my knowledge there is no self-report measure of OCB directed at the supervisor. As such, the items needed to be modified slightly so that participants could rate their own behaviours. The five modified OCB-S items are shown in Appendix E. Organizational citizenship behaviours directed at the organization (Appendix F) and at coworkers (Appendix G) were measured using the scales developed by Lee and Allen (2002). All OCB items were measured using seven-point Likert-type scales ranging from Never (1) to Daily (7).

Workplace Deviance. Supervisor-directed deviance was measured with the ten items used in Mitchell and Ambrose's (2007) study (see Appendix H for items). These authors pulled items from Bennett and Robinson's (2000) interpersonal deviance scale and Aquino et al.'s (1999) measure and modified them to measure deviance directed specifically at the supervisor. Organization-directed deviance was measured using the organizational deviance subscale of the Bennett and Robinson (2000) measure of deviance (see Appendix I). Coworker-directed deviance was measured using the interpersonal deviance scale by Bennett and Robinson, but items were modified to target behaviors directed only at coworkers instead of any individual at work (see Appendix J). All deviance items were scored using a seven-point Likert-type scale ranging from Never (1) to Daily (7).

Social Desirability. The impression management subscale of Paulhus's (1991) social desirability scale was administered to participants. One potentially offensive question was removed, leaving 19 items measured on a seven-point Likert-type scale ranging from 1 (Not true) to 7 (Very true).

Results

Variable means, standard deviations, alpha reliabilities, and intercorrelations are shown in Table 8.

Missing Data and Outliers

For respondents who missed two or fewer items per scale person-mean scale substitution was used to replace missing data points (Roth, Switzer, & Switzer, 1999). (Because Exchange Ideology only included four items after dropping poorly performing items, person-mean scale substitution was done if only one item was missing.) Roth et al. recommended this method for dealing with missing data within a given scale because item scores are likely to be correlated to some degree, such that each participant's own mean should be an accurate estimate of lost data.

Following this, Cook's Distance was used to identify potential multivariate outliers in the dataset. Cook's Distance is an indicator of the influence of each case in a multivariate equation which compares the results from the entire sample to those of the sample without each case (Roth & Switzer, 2002). In other words, this statistic measures how much the regression equation would change if each case was deleted. Bollen and Jackman (1990) suggested a cutoff of 4/n (in this case, 4/194 = 0.021) for Cook's Distance. Cases with values above that cutoff should be further examined and potentially excluded from analyses. Cook's Distance was computed for each regression equation and high values were further checked with examination of the

Table 8. Scale intercorrelations and descriptive statistics

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Gender	1.4	.49																
2. Age	37.09	10.34	.00															
3. Tenure	7.57	6.78	-.16*	.48**														
4. EI	4.23	1.38	-.46**	-.18*	.19**	(.83)												
5. NEI	3.06	1.52	-.55**	-.21**	.07	.71**	(.88)											
6. NRO	2.9	1.68	-.32**	-.09	.17*	.56**	.65**	(.98)										
7. PRO	5.32	0.97	-.09	-.12	.04	.23**	.17*	.03	(.90)									
8. Supervisor Justice	4.93	1.05	.41**	.07	-.17*	-.51**	-.64**	-.52**	-.07	(.90)								
9. Breach	3.14	1.1	-.26**	-.11	.08	.35**	.39**	.25**	.10	-.70**	(.72)							
10. OCB-O	5.01	1.03	-.07	.06	-.07	.18*	.13	.10	.18*	.16*	-.26**	(.89)						
11. OCB-C	5.26	0.91	.30**	.07	-.05	-.10	-.27**	-.11	.18*	.24**	-.18*	.49**	(.90)					
12. OCB-S	5.12	1.09	.13	.03	-.07	-.01	-.10	-.03	.08	.30**	-.29**	.54**	.51**	(.86)				
13. Dev-O	2.7	1.69	-.34**	-.09	.12	.52**	.72**	.69**	-.02	-.55**	.24**	.15*	-.11	.08	(.98)			
14. Dev-S	2.61	1.75	-.41**	-.11	.12	.52**	.75**	.68**	.03	-.65**	.30**	.12	-.17*	.09	.93**	(.98)		
15. Dev-C	2.54	1.74	-.34**	-.10	.13	.51**	.72**	.73**	.04	-.55**	.23**	.15*	-.15*	.11	.90**	.94**	(.97)	
16. IM	4.18	0.6	.11	.04	-.11	-.22**	-.28**	-.34**	.15*	.15*	.05	.01	.14	.01	-.39**	-.34**	-.39**	(.64)

Note. N = 185. IM = impression management. ** p < .01, * p < .05. Males are coded as 1, females are coded as 2.

scatterplots. Cases that were identified as outliers with both Cook's Distance and visual

examination were then removed from the analysis in question. Five participants were removed

from the Negative Exchange Ideology x Breach interaction analysis predicting organizational

deviance and three were removed from the Negative Exchange Ideology x Breach interaction

predicting coworker deviance. For the remaining analyses, outliers identified using Cook's

Distance did not seem to be affecting the results substantially and thus were included in analyses.

Confirmatory Factor Analysis

As in Study 1, confirmatory factor analyses were conducted using *Equations* (EQS;

Bentler, 2003). The same four competing models described in Chapter 3 were tested again here.

As shown in Table 9, the results are similar to those of Study 1. The four-factor model

(Exchange Ideology, Negative Exchange Ideology, Negative Reciprocity Orientation, and

Positive Reciprocity Orientation) provided a good fit to the data, whereas the one-factor model

and both two-factor models were poor fits according to both the CFI and RMSEA statistics.

Furthermore, Satorra-Bentler scaled chi-square difference tests indicated that the four-factor

model was a better fit than the one-factor model, x^2 diff (6) = 520.13, $p < .01$, the organizational

vs. individual two-factor model, x^2 diff (5) =277.02, $p < .01$, and the positive vs. negative two-

factor model, x^2 diff (5) = 222.23, $p < .01$. Taken together, these results and the results from

Study 1 provide good support for the proposed four-factor model.

Hypothesis testing

A series of hierarchical regression analyses were conducted to determine the interactive

effects of reciprocity beliefs and breach or interactional justice on work outcomes (OCBs,

deviance). Independent variables were centred to reduce multicollinearity (Aiken & West, 1991).

Table 9. CFA Goodness-of-fit Indicators for the Reciprocity Orientation Scales

Model	χ^2	Satorra-Bentler χ^2	df	CFI	RMSEA
One Factor	2710.40	2267.01	464	.695	.143
Two Factors (Individual vs. Organizational)	2073.07	1734.67	463	.785	.120
Two Factors (Positive vs. Negative)	2057.46	1738.13	463	.785	.120
Four Factors	1129.01	918.97	458	.922	.073

Note. N = 191. χ^2 = Chi-Square; Satorra-Bentler χ^2 = Satorra-Bentler Chi-Square; df = degrees of freedom; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation.

Because gender and impression management[3] were significantly related to each of the dependent variables, they were entered in the first step of each regression equation. The main effects were entered in the second step and the interaction term in the third. Interactions were examined only when they accounted for significantly more of the variance in the dependent variable than the variables entered in the step before.

Negative Exchange Ideology and Breach. If my hypotheses are supported then I should find that psychological contract breach and Negative Exchange Ideology interact to predict organizational deviance, but not deviance directed at coworkers. The results are consistent with these predictions. As shown in Table 10, psychological contract breach and Negative Exchange Ideology interacted to predict organizational deviance. Consistent with Hypothesis 1a, as breach perceptions and Negative Exchange Ideology increased, participants were more likely to report engaging in deviant behaviors directed at the organization (see Figure 1). Consistent with Hypthesis 1b, Negative Exchange Ideology and breach did not interact to predict deviant acts directed at coworkers.

Exchange Ideology and Breach. According to my hypotheses, psychological contract breach and Exchange Ideology should predict OCB-O but not OCBs directed at coworkers. As shown in Table 11, psychological contract breach and Exchange Ideology interacted to predict OCB-O. Consistent with Hypothesis 2a, as breach levels decreased (i.e., fulfillment perceptions increased), participants who were higher in Exchange Ideology were more likely to report engaging in citizenship behaviors directed at the organization (see Figure 2). Hypothesis 2b was also tested and supported here; no significant interaction was found between breach and citizenship behaviors directed at coworkers (see Table 11).

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[3] Note that analyses were also run without impression management; results were very similar and thus not reported here.

Table 10. Regression results for Negative Exchange Ideology

		Organizational Deviance (N = 188)	Coworker Deviance (N = 190)
		β	β
	Gender	-.33**	-.32**
	IM	-.37**	-.34**
Adj. R2		.26**	.24**
Step 2	Gender	.08	.07
	IM	-.19**	-.18**
	Breach	.02	-.02
	NEI	.74**	.72**
Adj. R2		.61**	.57**
ΔR^2		.35**	.33**
Step 3	Gender	.07	.05
	IM	-.21**	-.19**
	Breach	.13*	.00
	NEI	.69**	.71**
	Breach X NEI	.15**	.04
Adj. R2		.62**	.57
ΔR^2		.01**	.00

Note. ** $p < .01$, * $p < .05$. Males are coded as 1, females are coded as 2.
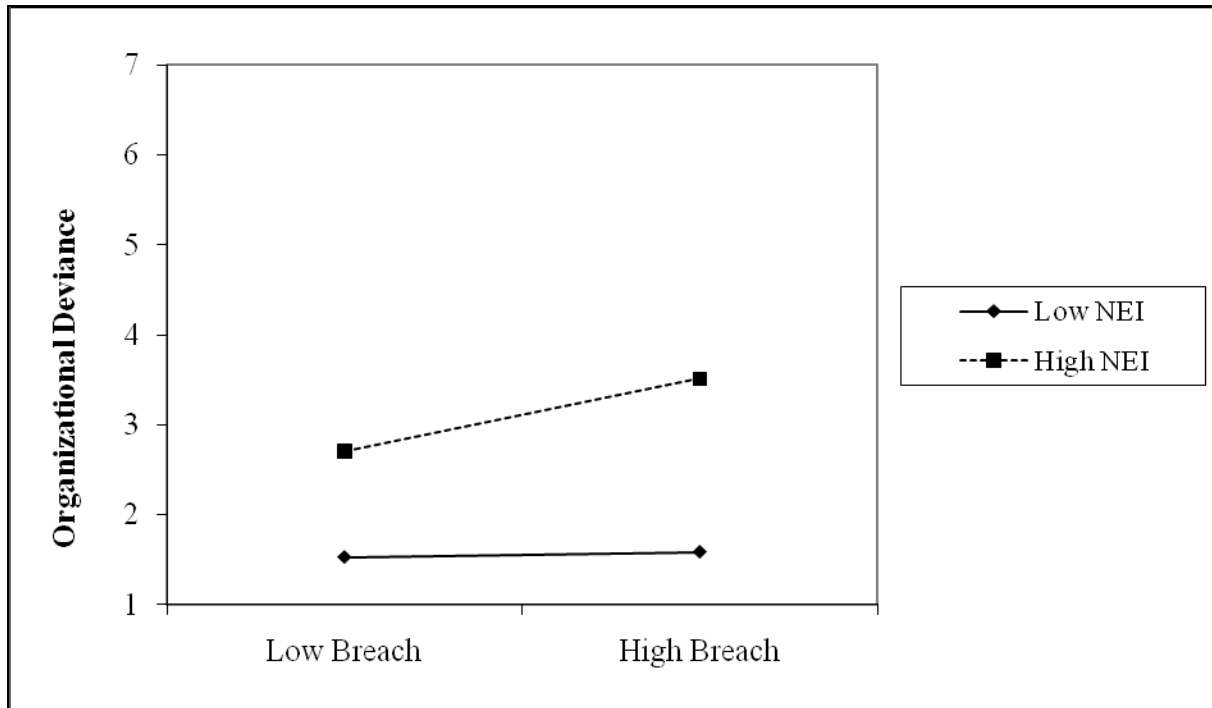
Figure 1. Interaction between psychological contract breach and Negative Exchange Ideology predicting organizational deviance.

Table 11. Regression results for Exchange Ideology

		OCB-O (N = 191)	OCB-C (N = 191)
		β	β
	Gender	-.08	.28**
	IM	.02	.11
Adj. R2		.00	.09
Step 2	Gender	-.03	.30**
	IM	.10	.14*
	Breach	-.38**	-.17*
	EI	.34**	.14
Adj. R2		.15**	.11*
ΔR^2		.16**	.03*
Step 3	Gender	-.04	.31**
	IM	.12	.13
	Breach	-.44**	-.13
	EI	.35**	.13
	Breach X EI	-.17*	.09
Adj. R2		.17*	.11
ΔR^2		.02*	.01

Note. ** $p < .01$, * $p \leq .05$. Males are coded as 1, females are coded as 2.
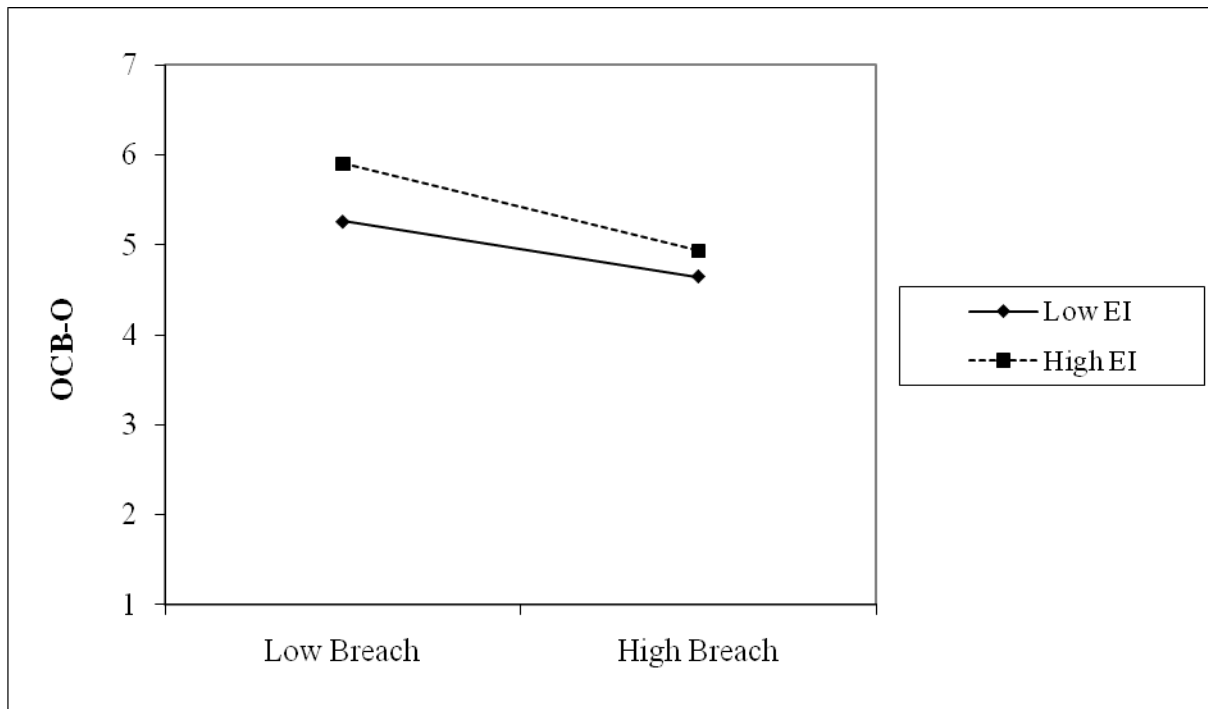
Figure 2. Interaction between psychological contract breach and Exchange Ideology predicting OCB-O.

Negative Reciprocity Orientation and Justice. According to my hypotheses, supervisor interactional justice and Negative Reciprocity Orientation should interact to predict supervisor-directed deviance but not coworker-directed deviance. As shown in Table 12, supervisor interactional justice and Negative Reciprocity Orientation interacted to predict supervisor-directed deviance. Consistent with Hypothesis 3a, as interactional justice decreased and Negative Reciprocity Orientation increased, participants were more likely to engage in deviance against the supervisor (see Figure 3). Consistent with Hypothesis 3b, there was no significant interaction between justice and Negative Reciprocity Orientation in predicting coworker-directed deviance (see Table 12).

Positive Reciprocity Orientation and Justice. The hypotheses regarding Positive Reciprocity Orientation and justice were not supported. Contrary to Hypothesis 4a, the interaction between Positive Reciprocity Orientation and justice did not significantly predict supervisor-directed OCBs (see Table 13). Though I expected that the interaction between Positive Reciprocity Orientation and justice would not predict OCBs directed at coworkers, in fact, the interaction was significant. However, the nature of this interaction suggests that employees who were higher in Positive Reciprocity Orientation did not increase or decrease coworker-directed helping behaviors as justice increased (see Figure 4). Only the OCBs of employees who were lower in Positive Reciprocity Orientation were affected by supervisor interactional justice – these employees increased OCBs as justice increased.

Discussion

The goals of the current study were to confirm the factor structure of reciprocity beliefs found in Chapter 3 and to examine the predictive validity of each form of reciprocity belief. The

Table 12. Regression results for Negative Reciprocity Orientation

		Supervisor Deviance (N = 190)	Coworker Deviance (N = 190)
		β	β
	Gender	-.39**	-.32**
	IM	-.30**	-.35**
Adj. R2		.26**	.24**
Step 2	Gender	-.12*	-.07
	IM	-.13**	-.15**
	Justice	-.35**	-.22**
	NRO	.43**	.56**
Adj. R2		.62**	.62**
ΔR^2		.36**	.37**
Step 3	Gender	-.12*	-.07
	IM	-.13**	-.16**
	Justice	-.39**	-.24**
	NRO	.38**	.52**
	Justice X NRO	-.11*	-.07
Adj. R2		.63*	.62
ΔR^2		.01*	.00

Note. ** $p < .01$, * $p < .05$. Males are coded as 1, females are coded as 2.
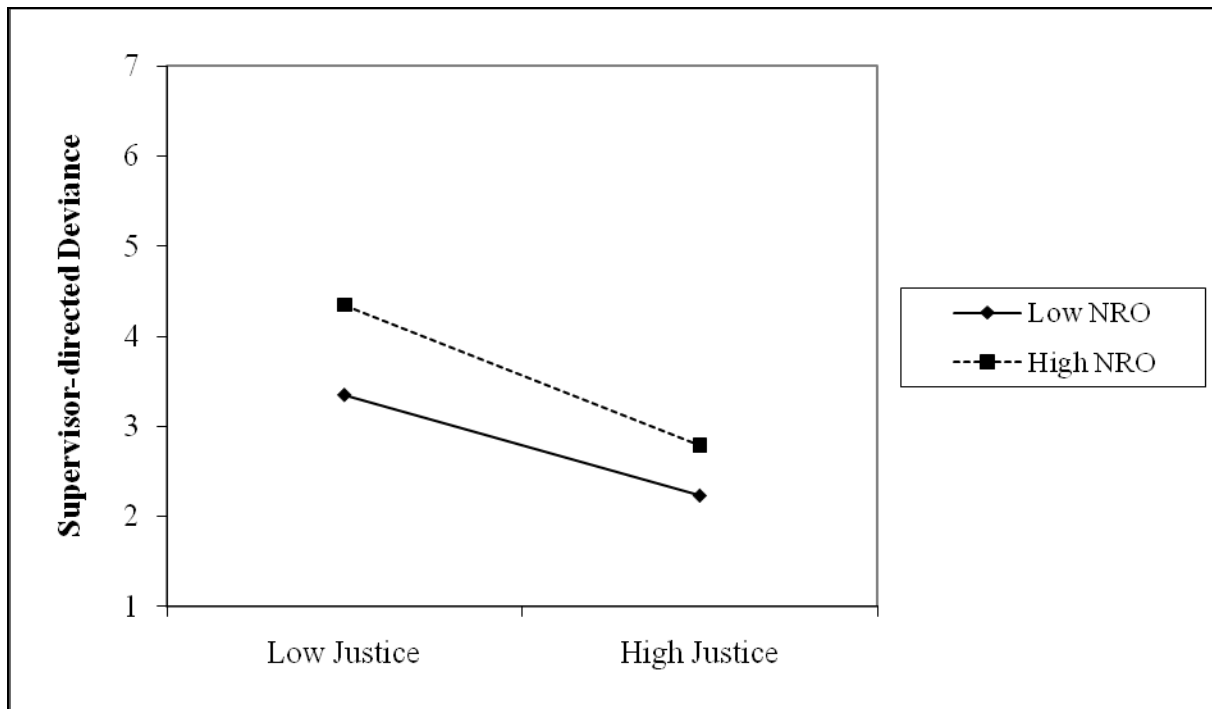
Figure 3. Interaction between interactional justice and Negative Reciprocity Orientation

predicting supervisor-directed deviance

Table 13. Regression results for Positive Reciprocity Orientation

		Supervisor OCB (N = 189)	Coworker OCB (N = 189)
		β	β
	Gender	.13	.28**
	IM	.00	.11
Adj. R2		.01	.09**
Step 2	Gender	.02	.25**
	IM	-.06	.06
	Justice	.30**	.15*
	PRO	.12	.22**
Adj. R2		.08**	.14**
ΔR^2		.08**	.06**
Step 3	Gender	.02	.24**
	IM	-.06	.06
	Justice	.30**	.17*
	PRO	.12	.20**
	Justice X PRO	.07	-.27**
Adj. R2		.08	.21**
ΔR^2		.01	.07**

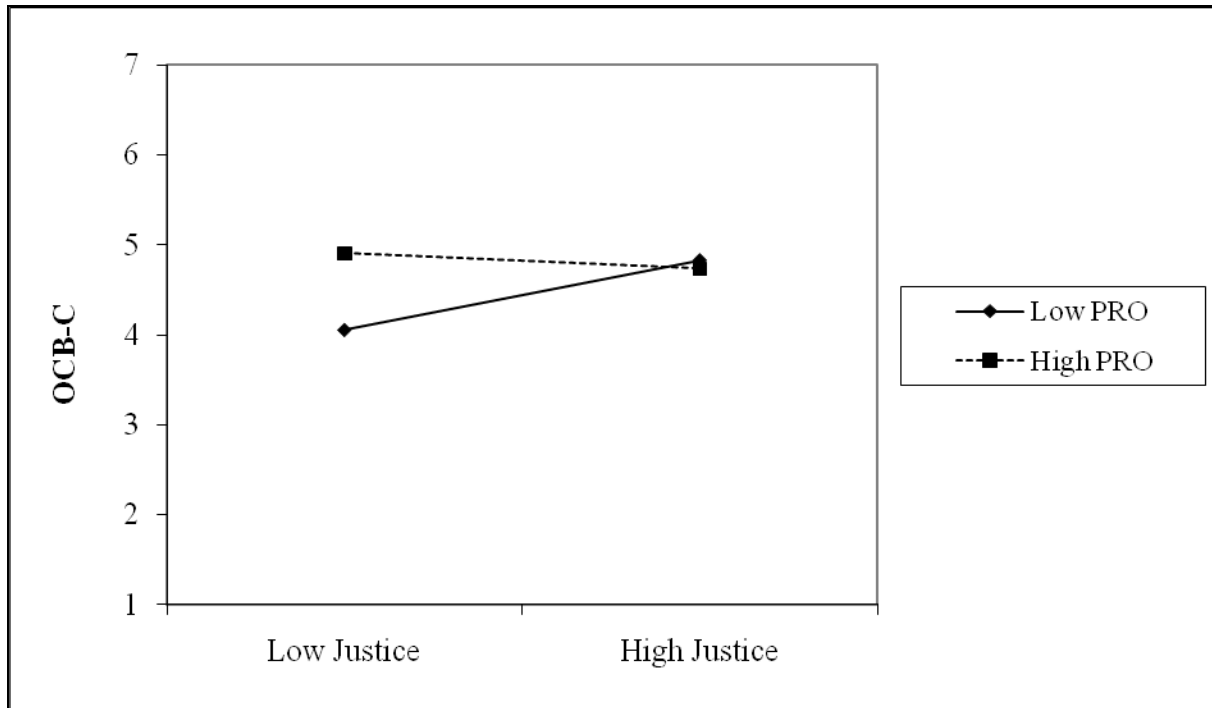*Note.* ** $p < .01$. Males are coded as 1, females are coded as 2.

Figure 4. Interaction between interactional justice and Positive Reciprocity Orientation predicting OCB-C

results of the confirmatory factor analysis confirmed the four-factor structure found in the earlier

study, and suggested that reciprocity beliefs consist of four separable factors: Exchange

Ideology, Negative Exchange Ideology, Positive Reciprocity Orientation, and Negative

Reciprocity Orientation. Perhaps more importantly, these factors also interact with situational

variables to predict, for the most part, work outcomes as proposed in Chapter 1. The newly

created Negative Exchange Ideology scale interacted with psychological contract breach to

predict organizational deviance in the expected manner; individuals higher in Negative Exchange

Ideology were more likely to report engaging in deviance against the company when

psychological contract breach perceptions were higher.

Exchange Ideology also interacted with breach in the hypothesized direction; individuals

higher in Exchange Ideology were more likely to perform organizational citizenship behaviors

when breach perceptions were low (i.e., when fulfillment of psychological contracts was high).

Negative Reciprocity Orientation interacted with supervisor interactional justice to predict

supervisor-directed deviance; as expected, employees who perceived lower levels of justice and

who were higher in Negative Reciprocity Orientation were more likely to engage in deviant acts

against the supervisor.

For Positive Reciprocity Orientation and supervisor interactional justice predicting

supervisor-directed OCBs, no significant interaction was found. However, I probed this further

by graphing the results of the regression analysis (see Figure 5) and found that although it was

non-significant, there was a slight trend in the expected direction. Accordingly, one explanation

for the non-significant result of this analysis could be simply that I did not have enough

statistical power to find the interaction. Alternatively, it is possible that Positive Reciprocity
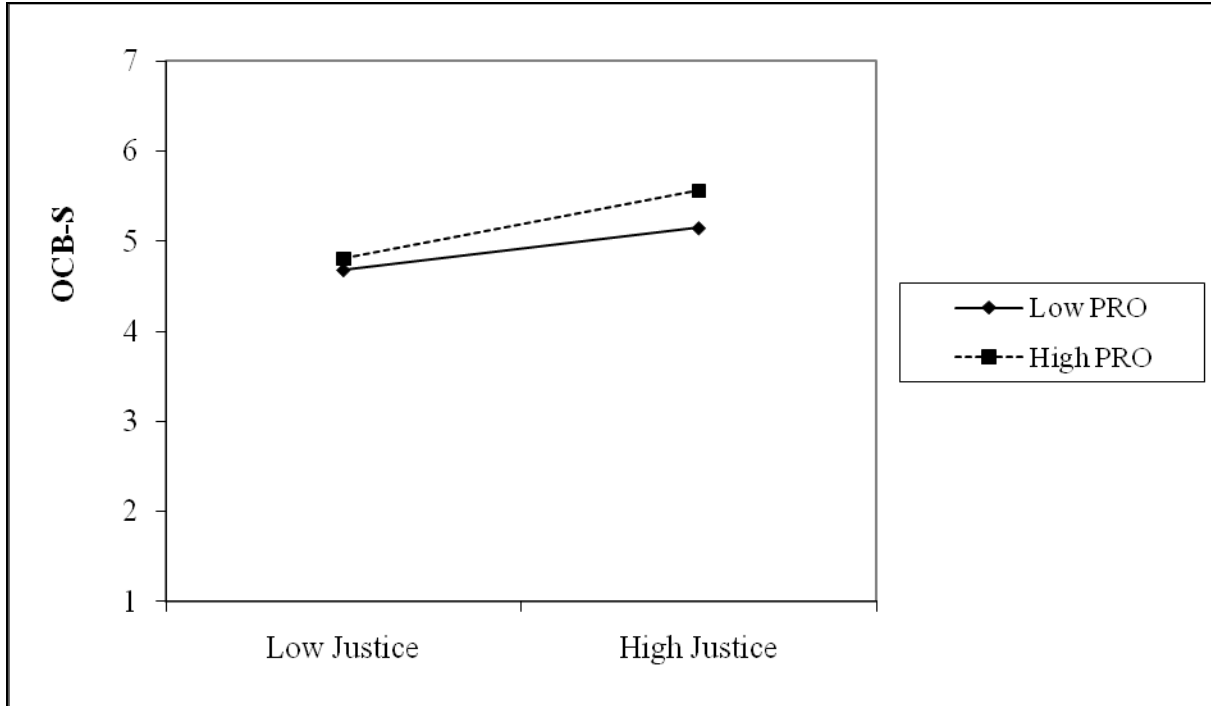
Figure 5. Non-significant interaction between Positive Reciprocity Orientation and supervisor justice predicting supervisor-directed OCBs

Orientation does not have an effect on supervisor-directed OCBs as a result of increased justice. There might be other factors that limit the extent to which participants can (or desire to) increase or decrease OCB-S that exert a stronger effect than does Positive Reciprocity Orientation. The role of Positive Reciprocity Orientation in reactions to injustice is further examined in the next chapter.

This study also examined whether employees with strong beliefs in reciprocity targeted their reaction at the entity responsible for the original act, whether that act was positive or negative. In all but one case, no interaction was found between reciprocity beliefs and actions directed at coworkers, suggesting that employees did not simply increase negative or positive acts in general as a result of the organization's or supervisor's actions. In the case of interactional justice and Positive Reciprocity Orientation, there was a significant interaction such that employees who were *lower* in Positive Reciprocity Orientation were more likely to increase OCBs directed at coworkers when supervisor justice perceptions were higher. Although this was not what I expected, it is not actually contradictory to the propositions outlined in Chapter 1; participants who were higher in Positive Reciprocity Orientation were no more likely to engage in OCBs directed at coworkers when supervisor justice perceptions were higher versus lower. Only those participants who were *not* concerned with reciprocity were likely to change their behavior toward coworkers as a result of the supervisor's actions, meaning that these individuals are not targeting the actual source of the (un)fairness and are reacting to it by helping (or not helping) anyone around them.

It is worth noting here that all four reciprocity beliefs were significantly correlated with impression management. For Exchange Ideology, Negative Exchange Ideology, and Negative Reciprocity Orientation, participants who were higher in impression management were less

likely to endorse these beliefs. For Positive Reciprocity Orientation, higher impression management was related to an increased likelihood of endorsing the belief. This is not particularly surprising; admitting that one is likely to increase negative or decrease positive behaviors in retaliation or increase positive behaviors as a reward is likely to elicit some discomfort. Of course, although reciprocity beliefs did correlate with impression management, the hypothesized relations still existed when impression management was controlled.

The relationship between gender and all beliefs other than Positive Reciprocity Orientation is particularly interesting. With the exception of Positive Recipocity Orientation, men were more likely to report supporting reciprocity beliefs than were women. Responses to the Positive Recipocity Orientation scale were unrelated to gender. Eisenberger et al. (2004) suggested that a "culture of honor" among some men might account for differences in reciprocal actions, particularly when "challenges to one's masculinity" (p. 12) are experienced. One might imagine that men could perceive organizational or interpersonal slights as challenges to their masculinity, making them more prone to believing that reciprocity is appropriate. Nonetheless, gender was controlled in the analyses predicting work outcomes, and reciprocity beliefs still showed incremental validity in most cases.

Limitations

One potential limitation of the current study is that participants reported on their own deviance and OCBs, which might be giving an inaccurate picture of the actual occurrence of these behaviors. In the past, some researchers have tried to assess deviance using peer reports rather than self reports because some participants might be unwilling to report the frequency of deviant behaviors accurately (e.g., Skarlicki & Folger, 1997). However, increasing evidence supports the notion that employees are the best source for this kind of information. Penney and

Spector (2005) compared self- and peer-reports of deviance and found that whereas 16% of peers reported never having seen the target employee engage in any deviance at all, only 1% of employees claimed to have never behaved deviantly. These authors concluded that deviance is often kept hidden from other employees and managers, and that peer reports may be a "deficient indicator" (p. 792) of deviance. Moreover, Bennett and Robinson (2000) reported that employees were willing to admit deviance if anonymity was guaranteed. This was in fact the case with this survey. Respondents completed the survey online and entered only a numeric ID for payment purposes, and no other identifying information was gathered.

Organizational citizenship behaviors were also self-reported, which might result in overestimates of their occurrence. Again, however, online and anonymous reporting should be less likely to result in inflations of these estimates, and social desirability was controlled in the regressions.

Another potential limitation of the current study is that it was cross-sectional in nature and thus conclusions about causal direction cannot be drawn. In the next chapter, I describe the results of a scenario study wherein participants were randomly assigned to conditions in order to experimentally manipulate the work situation and allow causal arguments to be made.

Chapter 5: Scenario Study

The results from Study 1 and Study 2 confirmed that there are four distinct types of reciprocity beliefs, and Study 2 also found that work outcomes were predicted by interactions between reciprocity beliefs and situational variables. The first purpose of Study 3 is to conduct two experiments to again test whether these beliefs interact with workplace antecedents in the expected ways, to determine which form of reciprocity belief is the best predictor of the expected outcome relative to the other reciprocity beliefs. If Negative Exchange Ideology behaves in the way I predict relative to the other scales, this will further establish the construct validity of this scale. The second purpose of Study 3 is to determine whether reciprocity beliefs interact with the work situations depicted to *cause* anticipated outcomes such as workplace deviance and organizational citizenship behaviours. Recall that both forms of exchange ideology and reciprocity orientation should determine how a person reacts in particular types of situations. When presented with a situation where a manager treats an employee unfairly, I would expect positive or negative reciprocity beliefs to be important in determining reactions. Alternatively, if employees are faced with a situation where an organization has not lived up to its commitment, I would expect one or both forms of exchange ideology to be important.

For this study, brief scenarios were presented to participants, after which they were asked to rate how they would react to the situation. To examine exchange ideologies, two scenarios were described. In one the organization lived up to its psychological contract and in the other it reneged on that promise. I was interested in how Exchange Ideology and Negative Exchange Ideology would predict the degree to which participants would engage in workplace deviance or organizational citizenship behaviours. In experimental terms, this study was a 2 (high vs. low Exchange Ideology or Negative Exchange Ideology) x 2 (breach vs. non breach) factorial design

The situational variables that are important for reciprocity orientation are different. In this case, reciprocity orientation is more likely to affect respondents' reactions to situations that are caused by another's behaviour. In this case, I manipulated interactional justice, where in one situation a supervisor treated an employee well and in the other he did not. This was a 2 (high vs. low reciprocity) x 2 (justice vs. injustice) factorial design.

Exchange Ideologies

To briefly summarize the research reviewed earlier, Exchange Ideology and Negative Exchange Ideology are focused on reciprocity directed at the organization. Exchange Ideology is concerned with repaying positive acts on the part of the organization (or a lack thereof) with increases (or decreases) of one's own positive acts, such as OCBs. Negative Exchange Ideology is directed at repaying negative organizational acts with negative behaviors of one's own, such as workplace deviance. Thus Negative Exchange Ideology should interact with psychological contract breach such that participants who are higher in Negative Exchange Ideology and who are faced with a breach will be more likely to react by engaging in negative acts directed at the organization, because individuals higher in Negative Exchange Ideology believe that it is appropriate to "get back at" the organization for a perceived slight. It should not, however, predict the degree to which they engage in OCBs

Accordingly, my hypothesis is as follows:

> Hypothesis 1: Condition (breach vs. no breach) will interact with Negative
> Exchange Ideology (high vs. low) such that participants who are exposed to a
> psychological contract breach and who are higher in Negative Exchange Ideology
> will be more likely to engage in organizational deviance.

Exchange Ideology should interact with psychological contract breach such that participants who are higher in Exchange Ideology and who are faced with a psychological contract breach should be more likely to react by performing fewer OCBs directed at the organization, because these individuals believe that the correct way to respond to organizational slights is to reduce work effort or other positive acts. It should not, however, predict the degree to which they report in engaging in deviant behaviours.

> Hypothesis 2: Condition (breach vs. no breach) will interact with Exchange
> Ideology (high vs. low) such that participants who are exposed to a psychological
> contract breach and who are higher in Exchange Ideology will be the least likely
> to engage in citizenship behaviors directed at the organization.

Reciprocity Orientation

As explained in the previous chapters, reciprocity orientation reflects beliefs that affect how individuals respond to *other individuals*' positive or negative acts. Positive Reciprocity Orientation is concerned with repaying positive acts with positive acts of one's own, such as increased helping behaviors, whereas Negative Reciprocity Orientation is focused on retaliating for negative acts with negative acts of one's own, such as interpersonal deviance.

Negative Reciprocity Orientation should interact with injustice such that participants who are higher in Negative Reciprocity Orientation and who are faced with an injustice from the supervisor should be more likely to react by engaging in deviant behaviors toward that supervisor, because individuals who are higher in Negative Reciprocity Orientation believe that it is appropriate to enact revenge against another person for a perceived slight. It should not predict OCBs directed at the supervisor.

Hypothesis 3: Condition (justice vs. injustice) will interact with Negative

Reciprocity Orientation (high vs. low) such that participants who are subjected to

supervisor injustice and who are higher in Negative Reciprocity Orientation will

be the most likely to engage in deviant acts against that supervisor.

Positive Reciprocity Orientation should interact with justice such that participants who

are higher in Positive Reciprocity Orientation and who are faced with an injustice from the

supervisor should be more likely to react by reducing citizenship behaviors directed at that

supervisor, because individuals who are higher in Positive Reciprocity Orientation believe that it

is appropriate to respond to a slight by reducing the frequency of positive acts. Positive

Reciprocity Orientation should not predict supervisor-directed deviance.

Hypothesis 4: Condition (justice vs. injustice) will interact with Positive

Reciprocity Orientation (high vs. low) such that participants who are subjected to

supervisor injustice and who are higher in Positive Reciprocity Orientation will be

the least likely to engage in supervisor-directed OCBs.

Of course, exchange ideologies and reciprocity orientations should only predict outcomes

in the manner described above. Exchange Ideology and Negative Exchange Ideology should not

interact with supervisor interactional justice or injustice to predict outcomes directed at the

supervisor. Similarly, Positive and Negative Reciprocity Orientation should not interact with

psychological contract breach to predict outcomes directed at the organization.

Method

Participants

Three hundred and twenty five students were recruited from the Psychology Research

Pool. Responses from 33 participants who completed the study in fewer than three minutes or

who indicated that they were not currently employed were deleted. In addition, several

participants identified as outliers (discussed further in the Results section) were deleted from

analyses, leaving a total sample of 282 (mean age = 18.46, *SD* = 1.65).

Participants were 65.7% female (*N* = 185), and approximately 70% white/Caucasian,

17% Asian, 3% Black/African-American, 2% East Indian, and 7.6% other or unspecified. Mean

tenure was 16.38 months (SD = 15.28 months), and almost 97% of the sample worked only part-

time. Over one-third of the sample (37.6%) reported working in retail, 23% worked in food

service, 7.8% worked in administrative roles, and the remainder worked in a variety of positions

(e.g., lifeguarding, tutoring, construction).

Measures

Demographics. Participants were asked to provide information about age, gender, type of

job, job status (full- or part-time), and tenure.

Reciprocity Beliefs. Negative Exchange Ideology was assessed using the six items

retained in Study 1 (Cronbach's alpha reliability = .81). Exchange Ideology was measured using

the four items from the Eisenberger et al. (2001) scale that were retained in Study 1 (Cronbach's

alpha reliability = .69). Negative Reciprocity Orientation was measured using the 12 items found

to have acceptable item-total correlations in Study 1 (Cronbach's alpha reliability = .94), and

Positive Reciprocity Orientation was measured using the full Eisenberger et al. (2004) scale

(Cronbach's alpha reliability = .86). Each item was scored using a 7-point Likert-type scale

ranging from Strongly Disagree (1) to Strongly Agree (7). As in Study 2, only the items retained

in the confirmatory factor analysis in Study 1 were analyzed here, although the full scales were

administered and the poorly performing items checked. Again, the items deleted in the previous

two studies had low item-total correlations in this study and thus were deleted from analyses.

Organizational Citizenship Behaviour. OCBs directed at the supervisor were assessed using the modified version of Malatesta's (1995, as cited in Rupp & Cropanzano, 2002) measure described in Chapter 4. All OCB items were measured using seven-point Likert-type scales ranging from Very Unlikely (1) to Very Likely (7). The five modified OCB-S items are shown in Appendix E, and Cronbach's alpha in this study was .91. Organizational citizenship behaviours directed at the organization were measured using the scale developed by Lee and Allen (2002, see Appendix F). Cronbach's alpha for this scale was .96.

Workplace Deviance. Supervisor-directed deviance was measured with the ten items used in Mitchell and Ambrose's (2007) study (see Appendix H for items). Organization-directed deviance was measured using the organizational deviance subscale of the Bennett and Robinson (2000) measure of deviance (see Appendix I). All deviance items were scored using a seven-point Likert-type scale ranging from Very Unlikely (1) to Very Likely (7). Cronbach's alpha was .93 for supervisor-directed deviance and .93 for organizational deviance.

Experimental Manipulations

For the study that focuses on exchange ideology:

All participants read:

You have been working as a shift supervisor at a major retail store in the mall for about a year. When you were first hired for the job, you were given a package explaining some of the benefits of working for the company, such as paid tuition for business classes to help you move up within the company and eventually work in corporate headquarters. Once your three-month probationary period was finished, you enrolled in a business course at Western...

In the Breach condition, participants read:

...but received a memo from corporate headquarters explaining that they have discontinued their paid-tuition program but that business courses were still necessary in order to receive any significant promotions.

In the No Breach (i.e., fulfillment) condition, participants read:

...and the company paid for your tuition and your textbook, and even gave you some extra time off before your final exam so you could do well on the test. You have enrolled in another business course, which is also paid for, and received a memo from corporate headquarters that you should continue to take as many courses as you want as long as they are business-related.

For the study that focuses on Reciprocity Orientation:

Participants read the following:

You have been working at a retail store in the mall for about a year, and a new supervisor was recently hired. In your dealings with this supervisor, you have noticed that he is always very...

In the Injustice condition, participants read:

...impolite and disrespectful, especially when he is correcting your work or explaining how things should be done in the store. He is not at all understanding when you need time off unexpectedly, and does not seem to do anything to try to accommodate your requests. When he cannot give you the days off, he refuses to explain his reasons and will not even try to let you off work early if possible. In general, you feel that your new supervisor treats you very unfairly from an interpersonal perspective.

In the Justice condition, participants read:

... polite and respectful, even when he is correcting your work or explaining how things should be done in the store. He is very understanding when you need time off unexpectedly, and tries his best to accommodate your requests. When he cannot give you the days off, he explains his reasons and tries to let you off work early if possible. In general, you feel that your new supervisor treats you very fairly from an interpersonal perspective.

The full scenarios as presented to participants are shown in Appendix K.

Procedure

After completing the informed consent form, each participant was asked to complete the reciprocity beliefs measures, along with the demographic items. Following this, participants were randomly assigned to one of four scenarios. Those in the exchange ideology study received either the scenario about psychological contract breach or psychological contract fulfillment and those assigned to the reciprocity orientation study received a scenario describing supervisor justice or supervisor injustice that was developed for this study. One hundred and fifty-four participants read the breach scenarios (73 of these read the No Breach scenario, and 81 read the Breach scenario), and 128 participants read the justice scenarios (67 read the Justice scenario, and 61 read the Injustice scenario). After reading the scenarios, participants were asked to rate how likely they would be to engage in various forms of workplace deviance and organizational citizenship behaviors in response. Finally, participants were directed to the debriefing page.

<div align="center">Results</div>

Missing Data & Outliers

For respondents who missed two or fewer items per scale, person-mean substitution was used to replace missing data points (Roth, Switzer, & Switzer, 1999) with one exception. Since

Exchange Ideology was only composed of four items, substitution only occurred if one item was missing. Roth et al. recommended this method for multi-item scales because item scores are likely to be correlated to some degree, such that each participant's own mean should be an accurate estimate of lost data.

Following this, Cook's Distance was used to identify potential multivariate outliers in the dataset. For the subset of participants who were presented with breach-related scenarios, seven participants whose data were identified as potential outliers *and* who were identified in an examination of the scatterplot as potentially problematic were deleted from further analysis. For the justice-related scenarios, four participants who were identified as outliers based on Cook's Distance and examination of the scatterplot were deleted.

Confirmatory Factor Analysis

Confirmatory factor analyses were conducted using *Equations* (EQS; Bentler, 2003). Each of the four possible factor structures proposed in Chapter 3 was tested; results are shown in Table 14. Although the CFI for the four-factor model is not as strong as in Chapters 3 and 4, the RMSEA value is acceptable and is under the commonly accepted .08 cutoff. Moreover, Satorra-Bentler scaled chi-square difference tests indicated that the four-factor model was a better fit than the one-factor model, x^2 diff (6) = 588.38, $p < .01$, the organizational vs. individual two-factor model, x^2 diff (5) = 259.76, $p < .01$, and the positive vs. negative two-factor model, x^2 diff (5) = 248.15, $p < .01$. These results are consistent with those found in the previous two studies, and suggest that the four types of reciprocity beliefs are separable constructs.

Table 14. CFA Goodness of Fit Indicators for Reciprocity Beliefs Scales

Model	χ^2	Satorra-Bentler χ^2	df	CFI	RMSEA
One Factor	2455.38	1890.83	464	.600	.109
Two Factors (Individual vs. Organizational)	2198.63	1673.10	463	.660	.100
Two Factors (Positive vs. Negative)	1779.77	1411.99	463	.734	.089
Four Factors	1259.81	977.35	458	.854	.066

Note. N = 260. χ^2 = Chi-Square; Satorra-Bentler χ^2 = Satorra-Bentler Chi-Square; df = degrees of freedom; CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation.

Effectiveness of Scenarios

To ensure that the scenarios performed as expected, I conducted independent samples t-tests. An examination of the means for the breach scenarios indicated that the mean level of organizational deviance in the breach scenario (M = 2.40, SD = 1.05) was significantly higher than the mean level of deviance in the No Breach scenario (M = 1.81, SD = .86; t (151) = -3.80, p < .01) and that the mean level of OCB-O for participants in the No Breach condition (M = 4.99, SD = 1.40) was significantly higher than that of the participants in the Breach condition (M = 4.18, SD = 1.26, t (152) = 3.80, p < .01). An examination of the means for the justice scenarios indicated that the mean level of supervisor-directed deviance was higher for participants in the Injustice condition (M = 2.07, SD = 1.17) than for participants in the justice condition (M = 1.42, SD = .74, t (126) = -3.80, p < .01), and that participants in the Justice condition were more likely to engage in supervisor-directed OCBs (M = 5.45, SD = 1.22) than were participants in the Injustice condition (M = 4.41, SD = 1.58, t (126) = 4.17, p < .01). These results suggest that participants were able to interpret the scenarios in the intended manner. Means, standard deviations, and intercorrelations of the four reciprocity beliefs measures are presented in Table 15.

Exchange Ideology

To examine the effects of Exchange Ideology and Negative Exchange Ideology on reactions to the breach scenarios, the exchange ideology measures were subjected to a median split and separate 2 (Negative Exchange Ideology: low, high *or* Exchange Ideology: low, high) x 2 (breach: low, high) analyses of variance were conducted for each of the dependent variables (organizational deviance, OCB-O).

Table 15. Descriptive statistics and intercorrelations of reciprocity beliefs

	M	SD	1	2	3
1. EI	3.80	1.08			
2. NEI	2.68	1.09	.51**		
3. PRO	5.27	.88	.11	-.19**	
4. NRO	3.07	1.20	.55**	.67**	-.03

N = 279-282

Negative Exchange Ideology. i. Deviance As shown in Table 16, there was a significant interaction between Negative Exchange Ideology and condition, $F(1, 149) = 4.418, p < .05$. As illustrated in Figure 6 and consistent with Hypothesis 1, simple effects tests showed that when participants were higher in Negative Exchange Ideology and experienced a psychological contract breach, they were more likely to react with organizational deviance ($M = 2.89$) than were participants who were lower in Negative Exchange Ideology ($M = 1.87, p < .01$). Cell means are displayed in Table 17. A separate analysis of variance examining Exchange Ideology, $F(1, 149) = 2.81, p > .05$, found no interactive effect on organizational deviance.

ii. OCB-O. Contrary to Hypothesis 2, there was no significant interaction between Exchange Ideology and condition in predicting organizationally-directed OCBs ($F[1, 150] = .65, p > .05$). Further analyses indicated that Negative Exchange Ideology did not have an interactive effect on OCB-O ($F[1, 150] = .02, p > .05$).

Exchange Ideology and Justice. Recall that exchange ideology should not interact with the two justice conditions to predict responses. To test this, 2 (justice: high, low) X 2 (Negative Exchange Ideology: low, high or Exchange Ideology: low, high) analyses of variance were conducted for each of the dependent variables. Neither Negative Exchange Ideology ($F[1, 122] = 2.92, p > .05$) nor Exchange Ideology ($F[1, 121] = .96, p > .05$) interacted with condition to predict supervisor-directed deviance. The same was true for supervisor-directed OCBs; no interaction between condition and Negative Exchange Ideology, ($F[1, 124] = .21, p > .05$) or Exchange Ideology ($F[1, 123] = 2.17, p > .05$) was found.

Table 16. Analysis of Variance results for main and interaction effects of condition and Negative

Exchange Ideology on organizational deviance.

Variable	Df	SS	MS	F
Main effect of condition	1	11.60	11.59	3.37*
Main effect of NEI	1	19.23	19.23	5.58*
Condition X NEI	1	3.44	3.44	4.42*
Error	149	116.15	.78	
Total	153			

*$p < .05$
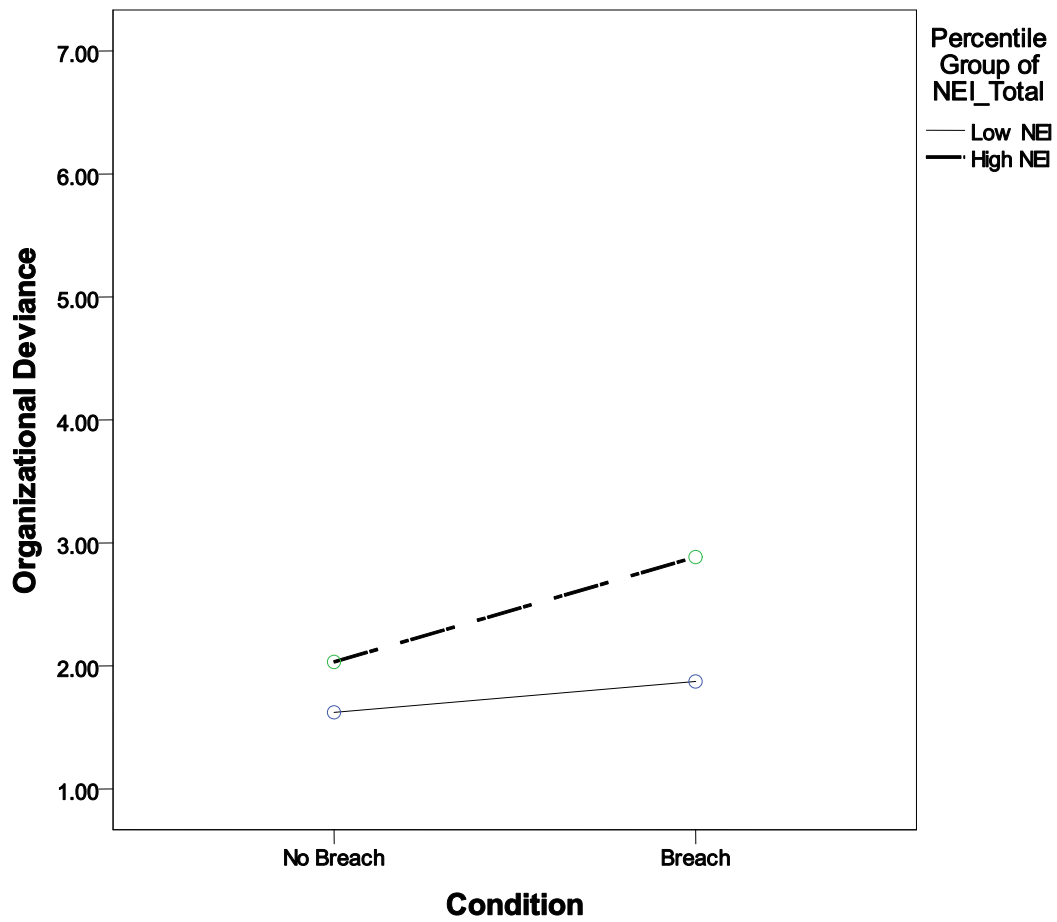
Figure 6. Interaction between Negative Exchange Ideology and Breach Condition in Predicting

Organizational Deviance

Table 17. Cell means for Negative Exchange Ideology X breach interaction predicting organizational deviance.

	Low Breach	High Breach	Total
Low Negative Exchange Ideology	1.62_a	1.87_{ab}	1.75
High Negative Exchange Ideology	2.03_b	2.88_c	2.5
Total	1.81	2.40	2.12

Note. Means that share a subscript do not differ at $p < .05$.

Reciprocity Orientation

To examine the effects of reciprocity orientation on reactions to the justice scenarios, the Positive and Negative Reciprocity Orientation measures were subjected to a median split and separate 2 (justice: low, high) by 2 (Positive Reciprocity Orientation: low, high *or* Negative Reciprocity Orientation: low, high) analyses of variance were conducted for each of the dependent variables (supervisor-directed deviance, OCB-S).

Negative Reciprocity Orientation. i. Supervisor-Directed Deviance. As shown in Table 18, there was a significant interaction between Negative Reciprocity Orientation and condition, F $(1, 122) = 5.00$, $p < .05$. As illustrated in Figure 7 and consistent with Hypothesis 3, simple main effects tests showed that when participants were higher in Negative Reciprocity Orientation and experienced an injustice from the supervisor, they were more likely to respond by behaving deviantly toward that supervisor ($M = 2.54$) than were participants who were lower in Negative Reciprocity Orientation ($M = 1.53$, $p < .01$). Cell means are displayed in Table 19. Further analyses showed that Positive Reciprocity Orientation, $F (1, 121) = .13$, $p > .05$, did not interact with condition to predict supervisor-directed deviance.

ii. Supervisor-directed OCB. Contrary to Hypothesis 4, there was no significant interaction between Positive Reciprocity Orientation and condition, $F (1, 123) = .00$, $p > .05$. Further analyses revealed that Negative Reciprocity Orientation had no interactive effect on supervisor-directed OCBs ($F [1, 124] = .01$, $p > .05$).

Reciprocity Orientation and Breach. I did not expect Positive or Negative Reciprocity Orientation to interact with the breach conditions to determine outcomes directed at the organization. To test this, 2 (breach: high, low) X 2 (Positive Reciprocity Orientation: low, high or Negative Reciprocity Orientation: low, high) analyses of variance were conducted for each of

Table 18. Analysis of Variance results for main and interaction effects of condition and Negative Reciprocity Orientation on supervisor-directed deviance.

Variable	Df	SS	MS	F
Main effect of condition	1	11.82	11.82	2.88*
Main effect of NRO	1	13.30	13.30	3.24*
Condition X NRO	1	4.104	4.104	5.00*
Error	122	100.05	.78	
Total	125			

* $p < .05$
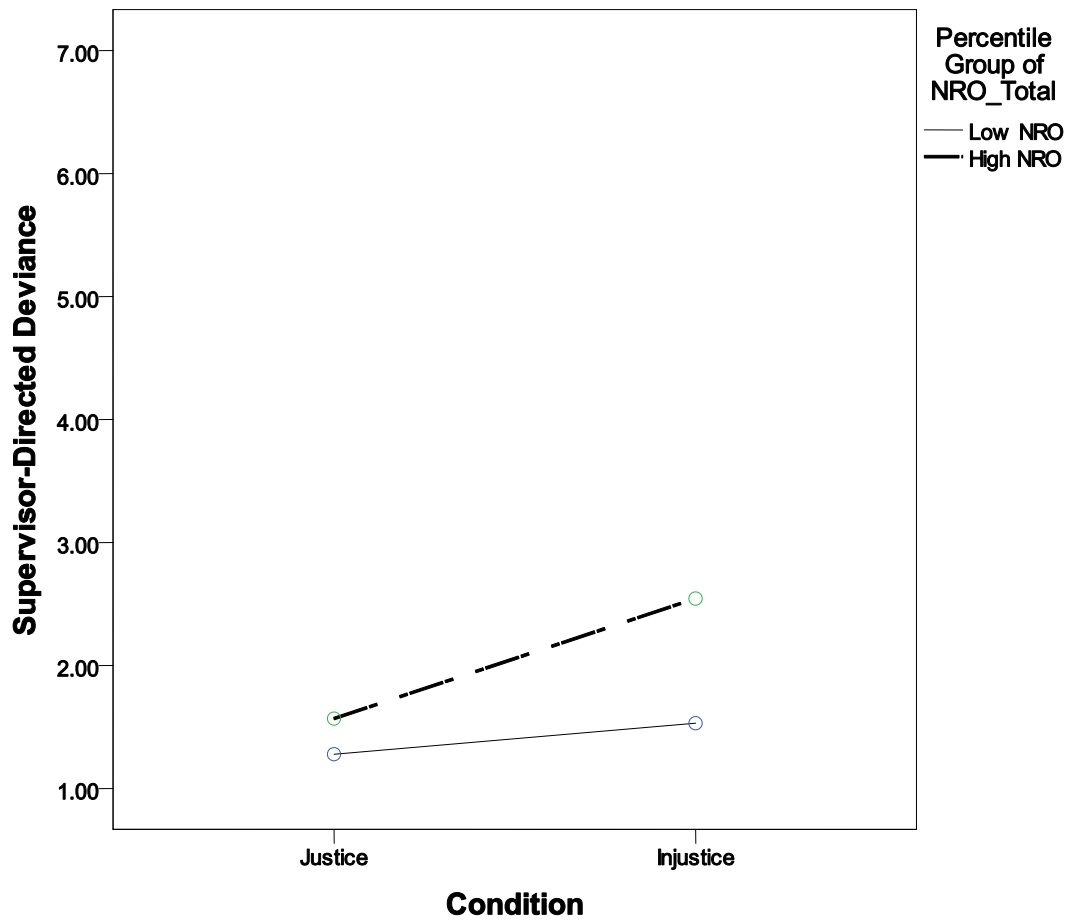
Figure 7. Interaction between Negative Reciprocity Orientation and Justice Condition in Predicting Supervisor-Directed Deviance

Table 19. Cell means for Negative Reciprocity Orientation X justice interaction predicting supervisor-directed deviance.

	Low Justice	High Justice	Total
Low Negative Reciprocity Orientation	1.53_a	1.28_a	1.39
High Negative Reciprocity Orientation	2.54_b	1.57_a	2.06
Total	2.07	1.41	1.73

Note. Means that share a subscript do not differ at $p < .05$.

the dependent variables. Neither Negative Reciprocity Orientation, $F(1, 149) = 1.20$, $p > .05$ nor Positive Reciprocity Orientation, $F(1, 147) = .36$, $p > .05$, had any interactive effects on organizational deviance. The same was true for OCBs directed at the organization; there was no significant interaction between condition and Negative Reciprocity Orientation ($F[1, 150] = 1.08$, $p > .05$) or Positive Reciprocity Orientation ($F[1, 148] = .05$, $p > .05$).

Discussion

The purpose of this study was to provide an empirical test of the differential effects of the various forms of reciprocity beliefs on theoretically relevant work outcomes. As expected, participants presented with a breach scenario who were higher in Negative Exchange Ideology were more likely to report that they would reciprocate by trying to harm the organization. Interestingly, and consistent with the propositions outlined in the introduction, Negative Exchange Ideology did not interact with breach to predict reductions in OCB-O. It seems that individuals who are higher in Negative Exchange Ideology do in fact prefer to reciprocate being treated negatively by engaging in negative behaviors of their own, rather than by simply decreasing the frequency of positive behaviors. Negative Exchange Ideology also did not interact with interactional justice from the supervisor to predict supervisor-directed deviance or OCBs, suggesting that the focus of this variable is indeed on the organization, rather than a general sense of the appropriateness of reciprocating bad behaviors from anyone or anything with bad behaviors of one's own.

Negative Reciprocity Orientation also interacted in the expected manner with supervisor interactional justice to predict supervisor-directed deviance. In this case, participants who were higher in Negative Reciprocity Orientation reported a higher likelihood of choosing to respond to injustice by engaging in deviant acts against the supervisor. Moreover, Negative Reciprocity

Orientation did not interact with justice to predict a reduction in OCB-S, suggesting that, like

Negative Exchange Ideology, the focus of this variable is on getting revenge by harming the

perpetrator rather than decreasing the frequency of positive acts. Negative Reciprocity

Orientation also did not interact with psychological contract breach to predict OCB-O or

organizational deviance, suggesting that this reciprocity belief is focused on other individuals

instead of the organization.

No interactions were found to predict citizenship behavior, whether it was directed at the

organization or the supervisor. It is possible that social desirability played a role here;

participants might have simply chosen to indicate that they would likely engage in OCBs in

response to the Justice or No Breach conditions because it is the socially correct action to take.

The mean levels of anticipated OCB in each of these conditions were quite high (over 5.0 in each

case), which supports the social desirability argument. In retrospect, measuring impression

management for use as a covariate in this study would have been helpful for explaining

potentially unexpected findings.

Overall, these results suggest that reciprocity beliefs are an important predictor of

anticipated deviant reactions to the work situation, and that each form of negative reciprocity

belief does in fact predict the expected outcomes while not interacting with antecedents or

outcomes that are theoretically unrelated to its focus. Additionally, unlike in the previous study,

the experimental design of this study allowed causal conclusions to be drawn. In the case of

psychological contract breach and supervisor interactional injustice, participants who were

higher in negative reciprocity beliefs were more likely to report that they would "get back at" or

"repay" the organization or supervisor as a result of the actions depicted in the scenario.

Limitations

One potential limitation of the current study is that the vast majority (97%) of participants worked only part time. These participants might not have had enough work experience to accurately determine how they would react in a given situation. A participant with little work experience might, for example, overestimate the ease of performing deviant behaviors in the workplace and report that he or she is very likely to do so despite the actual difficulty of engaging in certain behaviors. Alternatively, participants with little work experience might not be able to truly imagine being in the situations depicted, which could distort the responses given. That said, however, the mean tenure for this sample was greater than one year, indicating that although participants were not employed full-time, they did have a reasonable amount of experience in the current job and might be expected to be fairly good judges of the likelihood of engaging in deviant or helping behaviors in response to the given scenarios.

Finally, participants in this study were asked only to report how likely they were to choose deviance or OCBs as a result of the actions each scenario. While this is a good start, future research should examine actual behavior as a result of interactions between work situations and reciprocity beliefs.

Chapter 6: General Discussion

Overview

The first goal of this dissertation was to test whether individuals' reciprocity beliefs could be explained by four separate factors: Negative Exchange Ideology, Exchange Ideology, Negative Reciprocity Orientation, and Positive Reciprocity Orientation. To this end, I developed a measure of Negative Exchange Ideology by creating items consistent with test-construction recommendations, pilot-testing the items using a group of experts in Industrial/Organizational Psychology, and then administering the items to three separate samples of employees. The second goal of this dissertation was to determine whether these four types of reciprocity beliefs were useful moderators of relations between variables in the work situation (i.e., supervisor interactional justice and psychological contract breach) and relevant outcomes (i.e., workplace deviance and organizational citizenship behavior). Chapter 4 described a field study of employees wherein I examined the effects of reciprocity beliefs on reactions to breach or injustice on deviant or citizenship behaviors. Chapter 5 described a scenario study wherein situational variables were manipulated to examine the construct validity of reciprocity beliefs and test causal relations among the reciprocity beliefs and anticipated outcomes. In this chapter, the main findings of each study are discussed and integrated. Following this, the strengths and limitations of the research are evaluated, and finally the implications and directions for future research are discussed.

Discussion of Main Findings

Structure of Reciprocity Beliefs

To examine the proposed four-factor structure of reciprocity beliefs, I conducted confirmatory factor analyses on data from three separate samples of employees. In each case, the

proposed four-factor model was a better fit for the data than a one-factor model or either of the

two two-factor models tested (individual vs. organizational beliefs and positive vs. negative

beliefs). In two of the three samples, the fit statistics examined for the four-factor model were

within acceptable ranges, and in the third sample one of two fit statistics examined was

acceptable. The slightly weaker results in the third sample could be due to the composition of

this sample: 97% of the participants worked only part-time, and given the relatively young mean

age (18.46 years), these employees might not have had enough exposure to the work

environment to be able to distinguish as easily between "the organization" as a whole and other

people in the work environment. Older, more experienced workers may have worked under

many different supervisors within one organization, and had different experiences with each.

They would be in a better position to interpret the origins of an action as either being due to that

supervisor *or* the company's policies. Younger workers may not have the experience to be able

to make that distinction so clearly. Nonetheless, the four-factor model was still a better fit than

the other models, and taken together with the results from the first two samples, these results

support the notion that individuals consider positive and negative reciprocity separately, and are

able to differentiate between reciprocal acts targeted at an organization or at other individuals.

To achieve the four-factor structure, however, several items had to be deleted from the

published scales of Exchange Ideology and Negative Reciprocity Orientation. The items deleted

from these scales had negative or extremely low item-total correlations in the first sample, and

continued to perform poorly in subsequent administrations. The Negative Reciprocity

Orientation items dropped were both reverse-keyed, suggesting that respondents simply were not

paying close enough attention to notice the subtle change in wording. Interestingly, these two

items were also the only Negative Reciprocity Orientation items that were not properly classified

by 100% of the judges used in the pilot test described in Chapter 2, and were also deleted in the

Eder et al. (2006) study of responses to prisoner abuses at Abu Ghraib discussed in Chapter 1.

Those authors also found negative item-total correlations for these items and subsequently

dropped them from analyses.

For Exchange Ideology, the fact that four of eight items performed so poorly was a

surprise. In hindsight, however, this should not have been so unexpected. Eisenberger et al.

(1986) conceptualized Exchange Ideology as "the strength of an employee's belief that work

effort should depend on treatment by the organization" (p. 503). In 2001, Eisenberger et al.

added three items to the scale that were concerned with the employee "caring" about the

organization. This seems to be a slightly different concept, as these items – unlike the originals –

ask about somewhat abstract ideas: for example, whether the organization "cares about its

employees" or what it "thinks about [the employee's] efforts," and whether the employee should

care in return. Another item unrelated to caring was dropped, which asked specifically about the

employees' work effort as it related to the fairness of his or her pay. This may have been too

specific; the items that had higher item-total correlations asked about more general aspects of

treatment by the organization.

Arguably the remaining four Exchange Ideology items still tap the original

conceptualization of the construct as it relates to the exchange of work effort for fair

organizational treatment. Moreover, the four items had a much higher internal consistency than

did the full scale. That said, the fact that these items were essentially uncorrelated with the rest of

the Exchange Ideology scale raises the question of how – or whether – they should be used in

future research. It is possible that the caring-based items are important in their own right, but

given that the other items and the items measuring the other three types of reciprocity belief tend

to focus on behaviours or other tangible outcomes, researchers examining outcomes of

reciprocity should carefully consider whether the caring-based or the outcome-based items are

more likely to be meaningful. Using all eight of the Exchange Ideology items without taking the

internal structure of the scale into account could mean far lower reliability and predictive power

than using the subset of items that is most relevant for the outcomes under study.

An unexpected finding across all three studies was that Positive Reciprocity Orientation

consistently had very low correlations with the other three reciprocity beliefs scales. In each

study, Negative Reciprocity Orientation, Negative Exchange Ideology, and Exchange Ideology

all showed intercorrelations between approximately .50 and .75. This suggests these scales are

tapping similar – but still distinct – constructs. Positive Reciprocity Orientation, however, had

correlations that were typically less than half that. One possible reason for this difference is that

the referent used in the majority of Positive Reciprocity Orientation items is first-person (e.g., I

always repay someone who has done me a favour) whereas the items in the three other scales

primarily use a second- or third-person referent (e.g., It is OK for an employee to steal from an

organization that underpays its employees; If someone dislikes you, you should dislike them).

These items are more like attitude measures, with participants rating whether a particular

behavior is appropriate, than the Positive Reciprocity Orientation scale where participants rate

their own typical feelings or behaviors. Future researchers in this area might consider modifying

this scale to bring it more in line with the rest of the beliefs scales.

Moderating Effects of Reciprocity Beliefs

Based on the literature review presented in Chapter 1, I expected that Negative Exchange

Ideology would interact with psychological contract breach to predict deviance targeting the

organization, such as theft or sabotage, whereas Exchange Ideology would interact with breach

to predict citizenship behaviors targeting the organization, such as speaking highly of the company. On the other hand, I expected Negative Reciprocity Orientation to interact with supervisor interactional justice to predict deviance targeting that supervisor and Positive Reciprocity Orientation to interact with justice to predict citizenship behaviors focused on the supervisor. These propositions were tested in both a cross-sectional survey with adult employees and in an experimental design using employed students.

The results for workplace deviance were as expected: in both studies, Negative Exchange Ideology and Negative Reciprocity Orientation both moderated the relevant relationship in the expected manner. Negative Exchange Ideology interacted with psychological contract breach to predict deviance directed at the organization, and Negative Reciprocity Orientation interacted with supervisor injustice to predict deviance directed at the supervisor. In both cases, higher levels of negative reciprocity beliefs were related to increased deviance when breach or injustice was high.

The results for citizenship behaviors, however, were not as consistent. In the field study, Exchange Ideology moderated the relation between breach and OCB-O in the hypothesized direction; employees who were higher in Exchange Ideology were more likely to engage in OCBs when breach was lower (i.e., when fulfillment was higher). Although the interaction between Positive Reciprocity Orientation and supervisor interactional justice was non-significant in that study, an examination of the graph revealed a slight trend toward the expected interaction; participants who were higher in Positive Reciprocity Orientation were slightly more likely to respond to high levels of justice by engaging in OCBs directed at the supervisor. With more statistical power, this interaction would likely have become significant. In the scenario study, neither of the expected interactions was significant; results showed that the more positive

reciprocity beliefs did not interact with the condition to predict relevant outcomes. In hindsight, and in light of the results from the field study, I suspect that this was due to social desirability. The means for both forms of OCB were quite high even in the "bad" conditions (4.41 for injustice and 4.18 for breach), suggesting that participants were reluctant to claim they would not help the organization or the supervisor under any circumstance. Unfortunately, I did not measure impression management in this study, and thus could not statistically control for it here to determine its effects.

A noteworthy finding from the field study was that, as expected, reciprocity effects only extended to the actual source of the original action. To ensure that participants higher in reciprocity beliefs were not merely more likely to increase *all* positive or negative acts as a result of being pleased or displeased with the original act, without regard for the target of the reciprocity, I measured deviant and citizenship behaviors directed at coworkers. In all cases, individuals with higher reciprocity beliefs were no more likely to engage in coworker-directed deviant or helping behaviors as a result of actions on the part of the organization or supervisor. This lends strong support to the idea that when considering who should be repaid for an action, individuals who are higher in any kind of reciprocity belief are able to target the individual or organization responsible correctly and respond accordingly. Interestingly, the interaction between justice and Positive Reciprocity Orientation significantly predicted coworker-directed OCBs, but not as hypothesized. The interaction was driven by those participants who were *lower* in Positive Reciprocity Orientation: they were more likely to help coworkers when supervisor interactional justice was high. For participants higher in Positive Reciprocity Orientation, no change was evident across levels of supervisor justice.

In the scenario study, I also examined the differential effects of Exchange Ideology, Negative Exchange Ideology, and Positive and Negative Reciprocity Orientation. Each was entered into a 2x2 analysis of variance interaction along with each condition, and in each case the only significant predictor of deviant reactions in each condition was the most theoretically relevant type of reciprocity. Although no significant interactions were found between the more positive reciprocity beliefs and condition in predicting citizenship behaviors, neither of the negative reciprocity beliefs was significant here either.

Taken together, the results of these two studies suggest that reciprocity beliefs are useful in predicting reactions to workplace events. Although not every hypothesis worked out as expected, I believe there is enough evidence supporting the effects of Negative Exchange Ideology, Exchange Ideology, Negative Reciprocity Orientation, and Positive Reciprocity Orientation to justify continued examination of their effects.

<div align="center">Strengths and Limitations</div>

Strengths

There are two important strengths about this body of research. First, I followed rigorous scale-development procedures to create the measure of Negative Exchange Ideology. Based on a review of the relevant literature, I developed a definition of the construct and wrote items consistent with that definition. Six subject-matter experts reviewed these items and only those items that were properly categorized by at least five of six judges were retained for further study. Following this, the measure was administered to a large ($N = 302$) sample of employed adults in a wide range of industries and positions, and items were further deleted in accordance with test construction guidelines; items with low item-total correlations or that reduced the internal consistency of the measure were removed from analyses. Finally, the items from all four

reciprocity beliefs scales were analyzed in a confirmatory factor analysis that supported the proposed structure of reciprocity.

The second strength of this research is that the results were fairly consistent across each study. Although the fit statistics were not quite as strong in the third study, the factor analyses in all three studies showed that the four-factor structure was the best fit for the data as compared to a one-factor model or either two-factor model. The results for negative reciprocity beliefs were consistent across two fairly different samples and research designs, indicating that these results are likely to generalize to other samples and situations. The results for positive reciprocity beliefs were not quite as consistent, but there was some evidence in the field study that individuals do choose to react in kind when an organization or supervisor is considerate.

Limitations

A major limitation of the field study was that data were cross-sectional and correlational, making it impossible to draw conclusions about causal effects. To partly overcome this, I conducted a scenario study wherein participants were randomly assigned to condition and asked to rate their anticipated reactions to the situations depicted. Although this is a good first step in determining the causal relations among reciprocity variables and outcomes, participants were not rating their *actual* behavior in response to a workplace situation. Future research on this topic could utilize experimental methods in a lab study to examine real responses to workplace-relevant situations as a function of reciprocity beliefs.

Another limitation is that all measures were self-report, raising the question of common method bias. As noted in Chapter 3, however, the rejection of the one-factor model in the confirmatory factor analysis suggests that response biases were not a major issue in responses, at least for the reciprocity beliefs measures. This is also true for the results of the field and scenario

studies. In addition, social desirability was measured and statistically controlled in the field study. Desirability may have been an issue in the scenario study, but if this is the case then it should have decreased the relations among variables, contributing to Type II error rather than causing a false positive result.

Finally, some might argue that using only online data collection is a limitation of this study. I would argue, however, that using StudyResponse allowed me to sample from a wider range of participants than collecting data from one organization, increasing the generalizability of results. Participants recruited from StudyResponse were from a representative sample of industries, job types, and organization sizes. Furthermore, given the online and anonymous nature of the study, it should have been considered less "risky" to answer truthfully compared to a study conducted in an organization where employees might have been reluctant to answer truthfully, particularly for the deviance items. The same is true of the student sample; conducting the scenario study in a lab might have further increased the tendency to respond in a socially desirable manner. To ensure that the data used for each study were worth analyzing, I included an automatic completion time calculation in each survey and deleted participants who finished in very short times, indicating that they were unlikely to have been paying attention to the items. I also looked for outliers in the field and scenario studies using Cook's Distance and examination of the scatterplots, as recommended in Roth and Switzer (2002).

Future Directions

An important future direction for this research would be to examine the personality or other correlates of reciprocity beliefs, in order to help determine how these beliefs are developed. Eisenberger et al. (2001) argued that Exchange Ideology would "result from a personal history of direct experience, observation, and persuasion by others concerning the value of reciprocity in

the employee-employer relationship" (p. 43). While this may be true, there are likely some

dispositional factors at play in determining this and other reciprocity beliefs. Scott and Colquitt

(2007) included correlations between the Big Five personality factors and Exchange Ideology in

their article, and the correlations were so low as to be negligible (r = -.04 to .08). Narrower traits

might be useful here, as broad personality factors can mask important relationships among

variables (e.g., Hastings & O'Neill, 2009). For instance, one narrow facet of neuroticism, Anger,

could be related to the tendency to retaliate for negative acts.

Equity Sensitivity, a person's preference for various input/outcome ratios, might also be

useful to study in relation to reciprocity beliefs. Scott and Colquitt (2007) argued that the

primary difference between Equity Sensitivity and Exchange Ideology was that the former

focuses on distributive justice, whereas the latter is concerned with anything that can be

exchanged in a social relationship. Another distinction between the two is that Equity Sensitivity

typically involves a referent with whom an individual compares his or her ratio of inputs to

outputs (Clark, Foote, Clark, & Lewis, 2010) whereas in reciprocity beliefs the fairness or

unfairness of a situation seems to be judged independently of the outcomes for others. A person

high in Negative Reciprocity Orientation would likely respond the same way to a nasty comment

from his or her supervisor regardless of whether that supervisor spoke similarly to others in the

work environment, whereas a person high in Equity Sensitivity might overlook the slight if it

was common for the supervisor to speak that way to other employees. Despite the differences

between these two constructs, there are some broad similarities. For example, individuals who

are higher in both constructs are ultimately concerned with fairness between two parties. Few

researchers have examined the relations among these four constructs. We do know that the

correlation between Exchange Ideology and Equity Sensitivity is .26 (Scott & Colquitt, 2007)

but can only speculate on the relation to other variables. No doubt they are related but separate constructs. Future research should examine this possibility in order to more fully delineate the constructs.

Another interesting question would be to examine what happens to reciprocity beliefs over time. For instance, an employee could begin his or her career with a strong sense that he or she should "fight back" when the organization does something negative, but might later realize that this is not necessarily the most constructive response when one is seeking promotions or other benefits and might learn to turn the other cheek. A longitudinal design would allow researchers to test this proposition, along with examining causal effects of reciprocity beliefs.

Finally, future research should examine the moderating effects of reciprocity beliefs in other relations. This dissertation examined only psychological contract breach and supervisor interactional injustice predicting deviance and citizenship behaviors, but one could imagine myriad other relations which could benefit from the addition of reciprocity beliefs. For example, Byrne (1999, as cited in Rupp & Cropanzano, 2002) developed measures of procedural and interactional justice emanating from the organization (e.g., "the organization's procedures and guidelines are very fair") and from the supervisor (e.g., "my supervisor's procedures and guidelines are very fair"). Here, one could test the effects of Exchange Ideology or Negative Exchange Ideology on the relation between organization-focused justice measures and outcomes, and Positive or Negative Reciprocity Orientation on the relation between supervisor-focused justice measures and outcomes.

Implications

Although the relations between reciprocity beliefs and outcomes were not enormous, even a small percentage of variance accounted for could mean a large financial benefit for

organizations, given the incredibly high cost of deviance. Coffin (2003) estimated that deviance costs organizations in the United States up to 50 billion dollars annually. Companies could also stand to benefit financially from increased citizenship behaviors on the part of employees who reciprocate for benefits received. Although much more research needs to be done on reciprocity beliefs before they could be added to selection systems, this could be an avenue worth pursuing.

It may not be feasible at this point to assess employees' reciprocity beliefs during selection, but the results from this study indicate that at the very least, managers and organizations should be made aware of the potential consequences of treating employees badly. Some might assume that employees are unable or unwilling to fight back against an abusive supervisor, but Tepper, Mitchell, and Almeda (2011) presented meta-analytic data showing an average correlation of .51 between abuse and subordinate hostility, indicating that employees are ready and willing to retaliate for mistreatment. The results of this dissertation also indicate that some employees do choose to reciprocate, whether positively or negatively, and will find a way to do so when necessary. New policies and procedures that encourage fair and equitable treatment could go a long way in terms of improving the company's bottom line.

In addition to the practical implications of this research, there are some implications for research using the reciprocity beliefs scales. As mentioned earlier, the poor performance of several items from the published scales of Exchange Ideology and Negative Reciprocity Orientation suggests that further study and refinement of these measures is needed before they can be used as intended. The Positive Reciprocity Orientation items performed well, but this construct was not as highly correlated with the other scales as one might have expected. Again, this suggests that further study is needed before it can be used without hesitation. Future researchers might consider matching the referent of this scale with that used in the other three

reciprocity beliefs scales, to ensure that each is truly tapping the intended construct and not slightly different versions of it. Finally, further research examining the construct and predictive validity of Negative Exchange Ideology is needed; although the results from this dissertation indicated that it is a useful construct for predicting certain work outcomes, more evidence of its usefulness and more tests of the scale items themselves are necessary before it can be widely used.

Conclusion

To my knowledge, no study has compared the three existing measures of reciprocity beliefs, despite the fact that the same author, Robert Eisenberger, was involved in the development of all three of them (Eisenberger et al., 1986; Eisenberger et al., 2004). This dissertation not only examined the effects of the established reciprocity beliefs, but added a fourth type that could explain the limited previous findings regarding deviant behaviors. Adding Negative Exchange Ideology to the model integrates the negative reciprocity norm first discussed by Gouldner (1960) into the organizational literature and helps to explain why some employees react with malice to a slight on the part of the organization, whereas others are able to turn the other cheek. The lack of findings in earlier studies was attributed to social desirability issues, but the results of the current studies suggest that researchers were missing a key piece of the puzzle.

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Appendix A

Published Reciprocity Beliefs Measures

Exchange Ideology (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001)

1. Employees should not care about the organization that employs them unless that organization shows that it cares about its employees.

2. Employees should only go out of their way to help their organization if it goes out of its way to help them.

3. An employee should work as hard as possible no matter what the organization thinks of his or her efforts.*

4. If an organization does not appreciate an employee's efforts, the employee should still work as hard as he or she can.*

5. An employee who is treated badly by a company should work less hard.

6. An employee's work effort should depend partly on how well the organization deals with his or her desires and concerns.

7. An employee should only work hard if his or her efforts will lead to a pay increase, promotion, or other benefits.

8. An employee's work effort should not depend on the fairness of his or her pay.*

Positive Reciprocity Norm (Eisenberger, Lynch, Aselage, & Rohdieck, 2004)

1. If someone does me a favour, I feel obligated to repay them in some way

2. If someone does something for me, I feel required to do something for them

3. If someone gives me a gift, I feel obligated to get them a gift

4. I always repay someone who has done me a favour

5. I feel uncomfortable when someone does me a favour which I know I won't be able to return

6. If someone sends me a card on my birthday, I feel required to do the same

7. When someone does something for me, I often find myself thinking about what I have done for them

8. If someone says something pleasant to you, you should say something pleasant back

9. I usually do not forget if I owe someone a favour, or if someone owes me a favour

10. If someone treats you well, you should treat that person well in return

Negative Reciprocity Norm (Eisenberger, Lynch, Aselage, & Rohdieck, 2004)

1. If someone dislikes you, you should dislike them

2. If a person despises you, you should despise them

3. If someone says something nasty to you, you should say something nasty back

4. If a person wants to be your enemy, you should treat them like an enemy

5. If someone treats me badly, I feel I should treat them even worse

6. If someone treats you badly, you should treat that person badly in return

7. If someone has treated you badly, you should not return the poor treatment*

8. If someone important to you does something negative to you, you should do something even more negative to them

9. A person who has contempt for you deserves your contempt

10. If someone treats you like an enemy, they deserve your resentment

11. When someone hurts you, you should find a way they won't know about to get even

12. You should not give help to those who treat you badly

13. When someone treats me badly, I still act nicely to them*

14. If someone distrusts you, you should distrust them

Note. Items marked with * are reverse-keyed.

Appendix B

All Items Developed for Negative Exchange Ideology Scale

1. **An employee who is treated badly by a company should find a way to get revenge.**

2. **It is OK for an employee to steal from an organization that underpays its employees.**

3. **If an employee is breaking company rules, it's probably because the company did something to deserve it.**

4. Employees should never try to harm the organization, regardless of the organization's behaviour.*

5. It is OK for employees to steal from the company, regardless of how well the company treats its employees.*

6. If an organization treats its employees badly, it is OK for the employees to skip work sometimes.

7. **If your company treats you badly, you should treat the company badly in return.**

8. If your company treats you well, you should not treat the company badly.

9. An organization that treats its employees well does not deserve to have employees who treat it poorly.

10. Most employees who treat the organization badly are just trying to get revenge against the organization.

11. **If an organization's policies are unfair, employees should find a way to get revenge**

12. Treating an organization badly is never acceptable.*

13. **The right thing to do when a company treats its employees unfairly is to get revenge.**

14. Employees should only follow company rules when the company treats them well.

15. Regardless of the fairness of company policies, employees should treat the company

well.*

16. Even if the organization treats its employees badly, employees should not return the poor

treatment.*

Note. Items marked with * are reverse-keyed. Bolded items were retained after both pilot

testing and confirmatory factor analysis.

Appendix C

Psychological Contract Breach (Robinson & Morrison, 2000)

1. Almost all the promises made by my employer during recruitment have been kept so far.*

2. I feel that my employer has come through in fulfilling the promises made to me when I was hired.*

3. So far my employer has done an excellent job of fulfilling its promises to me.*

4. I have not received everything promised to me in exchange for my contributions.

5. My employer has broken many of its promises to me even though I've upheld my side of the deal.

Note. Items marked with * are reverse-keyed.

Appendix D

Interactional Justice (Donovan, Drasgow, & Munson, 1998)

1. Employees are praised for good work

2. Supervisors yell at employees *

3. Supervisors play favorites *

4. Employees are trusted

5. Employees' complaints are dealt with effectively

6. Employees are treated like children *

7. Employees are treated with respect

8. Employees' questions and problems are responded to quickly

9. Employees are lied to *

10. Employees' suggestions are ignored *

11. Supervisors swear at employees *

12. Employees' hard work is appreciated

13. Supervisors threaten to fire or lay off employees *

14. Employees are treated fairly

Note. Items marked with * are reverse-keyed.

Appendix E

Modified Supervisor-directed Organizational Citizenship Behavior Scale

(Malatesta, 1995, as cited in Rupp & Cropanzano, 2002)

1. Accept added responsibility when my supervisor is absent.

2. Help my supervisor when he or she has a heavy work load.

3. Volunteer to assist my supervisor with his or her work.

4. Take a personal interest in my supervisor.

5. Pass along work-related information to my supervisor.

Appendix F

Organization-directed Organizational Citizenship Behavior Scale (Lee & Allen, 2002)

1. Attend functions that are not required but that help the organizational image.

2. Keep up with developments in the organization.

3. Defend the organization when other employees criticize it.

4. Show pride when representing the organization in public.

5. Offer ideas to improve the functioning of the organization.

6. Express loyalty toward the organization.

7. Take action to protect the organization from potential problems.

8. Demonstrate concern about the image of the organization.

Appendix G

Coworker-directed Organizational Citizenship Behavior (Lee & Allen, 2002)

1. Help coworkers who have been absent.

2. Willingly give your time to help coworkers who have work-related problems.

3. Adjust your work schedule to accommodate other coworkers' requests for time off.

4. Go out of the way to make newer coworkers feels welcome in the work group.

5. Show genuine concern and courtesy toward coworkers, even under the most trying

   business or personal situations.

6. Give up time to help coworkers who have work or nonwork problems.

7. Assist coworkers with their duties.

8. Share personal property with coworkers to help their work.

Appendix H

Supervisor-directed Deviance Scale (Mitchell & Ambrose, 2007)

1. Made fun of my supervisor at work.

2. Played a mean prank on my supervisor.

3. Made an obscene comment or gesture toward my supervisor.

4. Acted rudely toward my supervisor.

5. Gossiped about my supervisor.

6. Made an ethnic, religious, or racial remark against my supervisor.

7. Publicly embarrassed my supervisor.

8. Swore at my supervisor.

9. Refused to talk to my supervisor.

10. Said something hurtful to my supervisor at work.

Appendix I

Organizational Deviance Scale (Bennett & Robinson, 2000)

1. Taken property from work without permission.

2. Spent too much time fantasizing or daydreaming instead of working.

3. Falsified a receipt to get reimbursed for more money than you spent on business expenses.

4. Taken an additional or longer break than is acceptable at your workplace.

5. Come in late to work without permission.

6. Littered your work environment.

7. Neglected to follow your boss's instructions.

8. Intentionally worked slower than you could have worked.

9. Discussed confidential company information with an unauthorized person.

10. Used an illegal drug or consumed alcohol on the job.

11. Put little effort into your work.

12. Dragged out work in order to get overtime.

Appendix J

Coworker-directed Deviance (Bennett & Robinson, 2000)

1. Made fun of a coworker.

2. Said something hurtful to a coworker.

3. Made an ethnic, religious, or racial remark to a coworker.

4. Cursed at a coworker.

5. Played a mean prank on a coworker.

6. Acted rudely toward a coworker.

7. Publicly embarrassed a coworker.

Appendix K

Scenarios for Study 2

Justice

You have been working at a retail store in the mall for about a year, and a new supervisor was recently hired. In your dealings with this supervisor, you have noticed that he is always very polite and respectful, even when he is correcting your work or explaining how things should be done in the store. He is very understanding when you need time off unexpectedly, and tries his best to accommodate your requests. When he cannot give you the days off, he explains his reasons and tries to let you off work early if possible. In general, you feel that your new supervisor treats you very fairly from an interpersonal perspective.

Injustice

You have been working at a retail store in the mall for about a year, and a new supervisor was recently hired. In your dealings with this supervisor, you have noticed that he is always very impolite and disrespectful, especially when he is correcting your work or explaining how things should be done in the store. He is not at all understanding when you need time off unexpectedly, and does not seem to do anything to try to accommodate your requests. When he cannot give you the days off, he refuses to explain his reasons and will not even try to let you off work early if possible. In general, you feel that your new supervisor treats you very unfairly from an interpersonal perspective.

No Breach

You have been working as a shift supervisor at a major retail store in the mall for about a year. When you were first hired for the job, you were given a package explaining some of the benefits of working for the company, such as paid tuition for business classes to help you move up within the company and eventually work in corporate headquarters. Once your three-month probationary period was finished, you enrolled in a business course at Western and the company paid for your tuition and your textbook, and even gave you some extra time off before your final exam so you could do well on the test. You have enrolled in another business course, which is also paid for, and received a memo from corporate headquarters that you should continue to take as many courses as you want as long as they are business-related.

Breach

You have been working as a shift supervisor at a major retail store in the mall for about a year. When you were first hired for the job, you were given a package explaining some of the benefits of working for the company, such as paid tuition for business classes to help you move up within the company and eventually work in corporate headquarters. Once your three-month probationary period was finished, you enrolled in a business course at Western but received a memo from corporate headquarters explaining that they have discontinued their paid-tuition program but that business courses were still necessary in order to receive any significant promotions.

Appendix L

Ethics Approvals

Department of Psychology The University of Western Ontario
Room 7418 Social Sciences Centre,
London, ON, Canada N6A 5C1
Telephone: (519) 661-2067Fax: (519) 661-3961

Use of Human Subjects - Ethics Approval Notice

Review Number	10 06 08	Approval Date	10 06 23
Principal Investigator	Joan Finegan/Stephanie Hastings	End Date	10 08 31
Protocol Title	Attitudes and behavior at work		
Sponsor	n/a		

This is to notify you that The University of Western Ontario Department of Psychology Research Ethics Board (PREB) has granted expedited ethics approval to the above named research study on the date noted above.

The PREB is a sub-REB of The University of Western Ontario's Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario. (See Office of Research Ethics web site: http://www.uwo.ca/research/ethics/)

This approval shall remain valid until end date noted above assuming timely and acceptable responses to the University's periodic requests for surveillance and monitoring information.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the PREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of research assistant, telephone number etc). Subjects must receive a copy of the information/consent documentation.

Investigators must promptly also report to the PREB:
a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
b) all adverse and unexpected experiences or events that are both serious and unexpected;
c) new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to the PREB for approval.

Members of the PREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the PREB.

Clive Seligman Ph.D.

Chair, Psychology Expedited Research Ethics Board (PREB)

The other members of the 2009-2010 PREB are: David Dozois, Bill Fisher, Riley Hinson and Steve Lupker

This is an official document. Please retain the original in your files

Department of Psychology The University of Western Ontario
Room 7418 Social Sciences Centre,
London, ON, Canada N6A 5C1
Telephone: (519) 661-2067 Fax: (519) 661-3961

Use of Human Subjects - Ethics Approval Notice

Review Number	10 10 19	Approval Date	10 10 12
Principal Investigator	Joan Finegan/Stephanie Hastings	End Date	10 11 30
Protocol Title	Individual beliefs and work outcomes		
Sponsor	n/a		

This is to notify you that The University of Western Ontario Department of Psychology Research Ethics Board (PREB) has granted expedited ethics approval to the above named research study on the date noted above.

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CC: UWO Office of Research Ethics

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Use of Human Subjects - Ethics Approval Notice

Review Number	11 03 04	Approval Date	11 03 10
Principal Investigator	Joan Finegan/Stephanie Hastings	End Date	11 04 30
Protocol Title	Attitudes and behaviour at work		
Sponsor	n/a		

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Clive Seligman Ph.D.

Chair, Psychology Expedited Research Ethics Board (PREB)

The other members of the 2010-2011 PREB are: Mike Atkinson (Introductory Psychology Coordinator), David Dozois, Vicki Esses, Riley Hinson Albert Katz (Department Chair), and Tom O'Neill (Graduate Student Representative)

Curriculum Vita

Stephanie E. Hastings

Education

Doctoral Program, Industrial/Organizational Psychology   September 2007-Present
University of Western Ontario, London, Ontario, Canada
Relevant graduate courses: Teams in Organizations, Selection and Recruitment, Doctoral
Seminar: Examining the Impact of Research in Industrial/Organizational Psychology
- Comprehensive exam successfully completed: May 2008

Master of Science, Industrial/Organizational Psychology   September 2005-July 2007
University of Western Ontario, London, Ontario, Canada
- Thesis entitled: *The Role of Ethical Ideology in Reactions to Injustice*
- Relevant graduate courses: Motivation and Leadership, Performance Appraisals, Work
  Attitudes and Behaviours, Applied Social Psychology, I/O Research Methods, Graduate
  Statistics, and Decision Making and Uncertainty

Bachelor of Arts, First Class Honours in Psychology   September 2001-April 2005
University of Calgary, Calgary, Alberta, Canada
- Honours thesis entitled: *Stimulus Dependence of Temporal Coding in Auditory Cortex*
- Dean's List: 2003, 2004, 2005

Related Work Experience & Positions

Instructor: The University of Western Ontario
- Summer 2011: Psychology of People, Work, & Organizations (Psychology 2060)
- Summer 2010: Psychology of People, Work, & Organizations (Psychology 2060)
- Winter 2010: Psychology of People, Work, & Organizations (Psychology 2060)
- Summer 2009: Introduction to Social Psychology (Psychology 2720)
- Fall 2008 – Winter 2009: Psychology of People, Work, & Organizations (Psychology
  2060)

Teaching Assistant: The University of Western Ontario
- Fall 2010 – Winter 2011: Psychology Honors Thesis Course (Psychology 4850)
- Fall 2009: Organization of exam proctors for all Psychology undergraduate courses
- Fall 2007 – Winter 2008: Psychology Honors Thesis Course (Psychology 4850)
- Summer 2007: Psychology of People, Work, & Organizations (Psychology 2060)
- Fall 2006 – Winter 2007: Psychology Honors Thesis Course (Psychology 4850)
- Summer 2006: Psychology of People, Work, & Organizations (Psychology 2060)
- Fall 2005 – Winter 2006: Introductory Psychology (Psychology 1000)

Research Assistant: Dr. Bernd Marcus (University of Hagen, Germany)

- November 2008 – present: Meta-analysis of various counterproductive work behaviors, their antecedents, and their consequences. Responsible for data entry and analyses.

Research Unit for Work and Productivity: The University of Western Ontario
Student Representative
2006 – Present
Relevant projects include:
- o Selection of Entrepreneurs in South Africa (June 2007- January 2009)
- o Value Profile Tool Assessment (June 2007 – October 2007)
- o Cultural Change Assessment (June 2007- June 2008)
- o Performance Evaluation Assessment (September 2006 - November 2006)

I/O Area Douglas N. Jackson Library Committee Representative: The University of Western Ontario
2009 - 2010

I/O Area Liaison Committee Student Representative: The University of Western Ontario
2007 – 2008

I/O Area Executive Committee M.Sc. Representative: The University of Western Ontario
2006 - 2007

4th Annual Southwestern Ontario I/O Student Conference
2009
Assisted in organizing conference among graduate students from three I/O psychology programs

1st Annual Southwestern Ontario I/O Student Conference
2006
Assisted in organizing conference among graduate students from three I/O psychology programs.

Peer-Reviewed Publications

O'Neill, T.A., & Hastings, S.E. (2011). Explaining Workplace Deviance Behavior With More Than Just the "Big Five". *Personality and Individual Differences, 50*(2), 268-273.
Hastings, S.E., & Finegan, J.E. (2011). The role of ethical ideology in reactions to injustice. *Journal of Business Ethics, 100*(4), 689-703.
Hastings, S.E., & O'Neill, T.A. (2009). Predicting workplace deviance using broad versus narrow personality variables. *Personality and Individual Differences, 47*(4), 289-293.

Conference Presentations

Hastings, S.E., Taylor, O.A., Marcus, B., Sturm, A. (2011, August). Antecedents of counterproductive work behavior: A meta-analysis. In S. Stewart & M.L. Gruys (Chairs), New discoveries of antecedents and correlates of counterproductive work behavior. Symposium conducted at the meeting of the American Psychological Association, Washington, DC.

Tarraf, R.C., Hastings, S.E., Hamilton, L.K., Fife, J., & Finegan, J.E. (2011, June). The mediating effect of work-family conflict on the relation between emotional labour and job outcomes. Poster presented at the annual meeting of the Canadian Psychological Association, Toronto, ON.

Taylor, O.A., Hastings, S.E., Sturm, A., & Marcus, B. (2010, July). The Internal Structure of Counterproductive Work Behaviors: A Meta-Analysis. Paper presented at the International Congress of Applied Psychology, Melbourne, Australia.

Hastings, S.E., Hamilton, L.K., Fife, J.A., & Finegan, J.E. (2010, June). The role of personality in the performance of emotional labour. Poster presented at the annual meeting of the Canadian Psychological Association, Winnipeg, MB.

Hastings, S.E., Hamilton, L.K., Fife, J.A., & Finegan, J.E. (2010, April). Are the Negative Effects of Emotional Labor Exacerbated Among Machiavellians? Poster presented at the Society for Industrial and Organizational Psychology annual conference, Atlanta, GA.

Hamilton, L. K., Hastings, S. E., Sheppard, L. D., Finegan, J. E. (2009, April). *Emotional labour: Scale development and validation.* Poster presented at the Society for Industrial and Organizational Psychology Annual Meeting, New Orleans, LA.

O'Neill, T.A., & Hastings, S.E. (2009, June). *Predicting workplace deviance using Big Five and non-Big Five personality variables.* Poster presented at the annual meeting of the Canadian Psychological Association, Montreal, QC.

Hastings, S. E., Hamilton, L. K., Sheppard, L. D., Fife, J., & Finegan, J. E. (2009, June). *Emotional labour: Does deep acting really matter?* Poster presented at the annual meeting of the Canadian Psychological Association, Montreal, QC.

Hastings, S. E. & O'Neill, T. A. (2008, June). *Predicting workplace deviance using broad and narrow personality traits*. Poster presented at the meeting of the Canadian Psychological Association, Halifax, NS.

Hamilton, L. K., Sheppard, L. D., Hastings, S. E., Vecchi, J. A., & Finegan, J. E. (2008, June). *Emotional labour: Scale development and validation*. Poster presented at the meeting of the Canadian Psychological Association, Halifax, NS.

Hastings, S. E. & Finegan, J. E. (2007, June). *The role of ethical ideology in reactions to injustice.* Poster presented at the meeting of the Canadian Psychological Association, Ottawa, ON.

Hastings, S. E., & Eggermont, J. (2006, June). *Stimulus dependence of temporal coding in auditory cortex.* Poster presented at the meeting of the Canadian Psychological Association, Calgary, AB.

Professional Affiliations

Canadian Society for Industrial and Organizational Psychology
Society for Industrial and Organizational Psychology
Canadian Psychological Association