

EXCHANGE WITHOUT RETURN:  
HELPING BEHAVIORS OVER TIME IN POSITIVE AND NEGATIVE RECIPROCITY  
RELATIONSHIPS

by

MATTHEW R. LEON

JONATHON R.B. HALBESLEBEN, COMMITTEE CHAIR

DANIEL G. BACHRACH  
PETER D. HARMS  
WAYNE A. HOCHWARTER  
MARILYN V. WHITMAN

A DISSERTATION

Submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy  
in the Department of Management  
in the Graduate School of  
The University of Alabama

TUSCALOOSA, ALABAMA

2015

Copyright Matthew R. Leon 2015  
ALL RIGHTS RESERVED

## ABSTRACT

There is broad awareness that the health of coworker relationships is often built on reciprocity and assessments of member exchanges, where relationships are pursued or terminated based on benefits received. Both social exchange theory and equity theory propose that, when an exchange relationship is no longer favorable (i.e., a negative reciprocity relationship), an individual should terminate it to prevent resource losses. While this is economically rational, it often is impossible or impractical to terminate a relationship in a work context. The objective of this dissertation is to address this apparent mismatch between theories of helping behavior and typical workplace dynamics. I do so by exploring three possible explanations for this mismatch.

First, I argue that the one of the key assumptions of social exchange theory, that the relationships are voluntary, may not always hold in a work setting. Second, I argue that fluctuations in investment behavior, specifically helping, changes in a non-linear fashion over time. Finally, I examine the impact of reciprocity, perceptions of team member efficacy, and third-party investment on helping behaviors in a sustained, negative reciprocity relationship. Across two experiments and one field study, I found that helping behaviors change discontinuously over time, individuals will help a partner complete an interdependent task regardless of reciprocation, and that helping is driven by a combination of factors including partner performance and general perceptions of a partner's helpfulness.

## DEDICATION

This dissertation could not, and would not, have been completed without the support and guidance of my family, friends, and mentors. First and foremost, I want to thank my wife, Becca, for being so patient, kind, and forgiving throughout this process. You have listened to me lament, celebrate, and everything in between over this (and all my research) for years, and I wouldn't be here without you. Similarly, I am forever grateful to my family - parents, sister, and in-laws - for their constant support and lightheartedness. In addition to my family, I can't say enough about my friends both inside and outside the doctoral program that have always been there to provide constructive criticism, perspective, and a cold beer after a long day. Finally, I owe so much of this to my advisor, Jonathon Halbesleben. I can't thank you enough for providing me the opportunity to earn a Ph.D. It was, quite literally, a life changing career move and I will always be grateful for it.

Life is a lot more fun when you have people to share it with and each of you continues to show me that every day. I have been very lucky to have such incredible people around me for so long. Thank you all for everything.

## LIST OF ABBREVIATIONS AND SYMBOLS

<i>a</i>	Cronbach's index of internal consistency
<i>df</i>	Degrees of freedom: number of values free to vary after certain restrictions have been placed on the data
<i>n</i>	Sample size
<i>p</i>	Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value
<i>r</i>	Pearson product-moment correlation
<	Less than
>	Greater than
=	Equal to

## ACKNOWLEDGMENTS

I am pleased to have this opportunity to thank the many colleagues, friends, and faculty members who have helped me with this research project. I am most indebted to Jonathon Halbesleben, the chairman of this dissertation, for sharing his research expertise and wisdom over the years. I would also like to thank all of my committee members, Dan Bachrach, Pete Harms, Wayne Hochwarter, and Marilyn Whitman for their invaluable input, inspiring questions, and support of both the dissertation and my academic progress. I would like to thank Tom Bellairs for his assistance in all Excel related issues! Finally, I want to thank Erika McCalpine, Reg Tucker, Ashley Mandeville, Kris Hall, and Marilyn Whitman for giving me access to their students for data collection.

This research would not have been possible without the support of my friends and fellow graduate students and of course of my family who never stopped encouraging me to persist.

## CONTENTS

ABSTRACT.....	ii
DEDICATION.....	iii
LIST OF ABBREVIATIONS AND SYMBOLS.....	iv
ACKNOWLEDGMENTS.....	v
LIST OF TABLES.....	viii
LIST OF FIGURES.....	ix
1. INTRODUCTION.....	1
a. Overview / Statement of the Problem.....	1
b. Plan for the Dissertation.....	5
2. LITERATURE REVIEW.....	6
a. Antecedents of Helping.....	6
b. The Impact of External Relationships on an Exchange Relationship....	14
3. METHODS.....	18
a. Study 1 Test of Discontinuous Change in Helping over Time.....	18
b. Study 2 Test of the Moderating Effect of an External Relationship.....	24
c. Study 3 Field Study of Helping Behaviors over Time.....	26
4. RESULTS.....	29
a. Study 1: Reciprocity and Perceptions of Partner Efficacy.....	29
b. Study 2: Third Party Helping Behaviors.....	38
c. Study 3: Field Study.....	43
5. DISCUSSION.....	47

a. Studies 1 and 2 .....	47
b. Study 3 .....	54
c. Conclusion.....	58
REFERENCES .....	61
APPENDICES .....	73
a. Study 1-3 Survey Items.....	73
b. Study 1-3 Control Variables .....	76
c. Study 3 Helping Items .....	79
d. Screenshots of Proofreading Protocol.....	81
e. IRB Certificates.....	83



## LIST OF TABLES

1.1 Dimensions of Helping .....	8
4.1 Descriptive Statistics for Study 1 Level 1 Variables .....	30
4.2 Sample Data Structure for a Participant.....	31
4.3 Discontinuous Mixed-Effects Growth Model for Study 1.....	32
4.4 Discontinuous Mixed-Effects Growth Model for Study 1.....	35
4.5 Discontinuous Mixed-Effects Growth Model for Study 1.....	37
4.6 Descriptive Statistics for Study 2 Level 1 Variables .....	39
4.7 Discontinuous Mixed-Effects Growth Model for Study 2.....	41
4.8 Descriptive Statistics for Study 3 Variables .....	44
4.9 Random Coefficient Model for Study 3.....	45

## LIST OF FIGURES

2.1 Helping Behaviors in a Negative Reciprocity Relationship .....	13
--------------------------------------------------------------------	----

## CHAPTER 1

### INTRODUCTION

#### **1.a Overview / Statement of the Problem**

Sustained helping behaviors are increasingly important in organizations as work becomes more interdependent and knowledge becomes more specialized (Settoon & Mossholder, 2002). However, it has been widely recognized that not everyone contributes equally to teams and that some team members have to “pick up the slack” from others (Comer, 1995). Dominant theories of helping behavior at work, most notably social exchange theory, suggest that individuals should terminate these bad relationships (Blau, 1964; Gouldner, 1960). Nonetheless, employees often will continue to help coworkers that do not reciprocate (Fox, Spector, Goh, Bruursema, & Kessler, 2012) and often do so despite very high personal and organizational costs (Bergeron, 2007; Bergeron, Shipp, Rosen, & Furst, 2013; Gallie, Zhou, Felstead, & Green, 2012; Klotz & Bolino, 2013; Mathieu, Maynard, Rapp, & Gilson, 2008). Even when employees’ resources are diminished, it is helping behaviors that they turn to as a response (Halbesleben & Bowler, 2007). This raises a critical question for theory and practice: why do employees invest resources in helping others that will not reciprocate?

The objective of this dissertation is to address this apparent mismatch between theories of helping behavior and typical workplace dynamics. I do so by exploring three possible explanations for this mismatch. First, I argue that the one of the key assumptions of social exchange theory, that the relationships are voluntary, may not always hold in a work setting.

Social exchange theory (SET) and equity theory characterize exchange relationships as rational interactions that should be terminated if an individual feels that he or she is putting more into the relationship than receiving (Adams, 1965; Blau, 1964; Gouldner, 1960). While relationship termination is rational when considering only the inputs and outcomes of a relationship, it often is too costly an option in the workplace because of the institutionalized social structures embedded in the organizational context (Halbesleben, 2012) and the personal costs of unemployment. Instead, employees will maintain exchange relationships at a high resource cost. Violations of the assumption that relationships are ended if reciprocity does not exist hold broader implications for how we understand work relationships. For example, the literature concerning connections at work (e.g., Ragsin & Dutton, 2007) defines the quality of connections between coworkers in terms of how they treat each other. In such a framework, helping a coworker that does not reciprocate would be viewed as a positive connection. However, other studies have suggested that helping in those situations may not be all that it seems: helping behaviors may not be offered in a way that is particularly civil (Fox et al., 2012) and would seem to suggest a negative relationship (Dutton & Heaphy, 2003). The complexity associated with both reciprocity and the manner in which it is delivered has led several scholars to suggest that theories grounded in reciprocity be de-emphasized in the literature (Coyle-Shapiro & Conway, 2004; Coyle-Shapiro & Shore, 2007).

To address concerns about reciprocity-based theories, I argue, consistent with emerging research concerning helping behaviors at work (e.g., Halbesleben & Wheeler, 2015, 2011), that previous studies have not adequately accounted for the role that time plays in dyadic work relationships. In an exchange relationship, helping behaviors are embedded in time; they are dependent on past experiences and future expectations. The experience of helping a new

coworker with little experience is certainly quite different from the experience of helping someone after the relationship has been well established (Ferris et al., 2009). Interestingly, reciprocity as a driving force in work relationships has also led to an underlying assumption that relationships evolve in a pattern consistent with linear growth. Helping has been characterized in a linear fashion where helping behaviors increase over time based on perceptions of reciprocity or perceptions of team members' efficacy (e.g., Deckop, Cirka, & Andersson, 2003; Kim, O'Neill, & Cho, 2009). However, empirical research outside of the work context has consistently suggested that relationships do not grow in predictable linear patterns but instead fluctuate (cf., Baxter, 1988, 1990; Becker, Johnson, Craig, Gilchrist, Haigh, & Lane, 2009).

Theoretical development in work settings is moving more toward the notion of fluctuation in dyadic relationships (Halbesleben, 2012). For example, Cropanzano and Mitchell (2005) suggested that the impact that reciprocity has on behavior in a relationship will vary over time (see also Bamberger, 2009). Further, Ferris et al.'s (2009) model of work relationships suggested that dimensions of work relationships will vary in their importance in the history of relationship. Key to this dissertation is their suggestion that instrumentality of the relationship will be important early on, but will diminish in importance over time. Despite these theoretical advances, empirical organizational behavior research rarely articulates fluctuations in investment behaviors (e.g., helping) within exchange relationships (Halbesleben & Wheeler, 2015). In negative reciprocity relationships, theory would suggest that helping behaviors will be withdrawn almost immediately upon entering the relationship and remain low (Oarga, Stavrova, & Fetchenhauer, 2015). On the other hand, social context norms of organizations suggest helping behaviors should not start out low immediately as employees try to help out their coworker. As a result, the idea that helping will abruptly change (rather than gradually change) has not been

tested. Thus, the first specific objective of this dissertation is to establish that helping behaviors fluctuate in non-linear patterns in situations of negative reciprocity.

Upon establishing that non-linear changes in helping are a better fit to dyadic work relationships, the next step is to understand variables that can impact the points of nonlinear change. I will explore two specific moderators to the nonlinear change in helping that occurs in negative reciprocity relationships, one within dyadic relationships and one outside of such relationships. The perceived efficacy of the dyadic partner should serve as a moderator. If one enters an exchange relationship with a highly efficacious partner, then expectations of return will, naturally, be higher. This should encourage more investment over longer periods of time than in those cases where the exchange partner is perceived to have low ability.

Outside of the dyadic relationship, I explore the impact of organizational context on exchange relationships. To avoid consequences of terminating a work relationship, an employee may feel forced to continue helping. Here, forces external to the exchange relationship may override the benefits of terminating the relationship (e.g., social cues). Extending a line of research in social networks theory (Bowler & Brass, 2006), I examine the role that relationships outside of the dyad play in helping behavior. Though there have been previous suggestions that helping may be used to manage impressions, it is not clear how those motives change over time. For example, it is unclear whether employees might reach a point where they have adequately managed the impression of an external entity and can then cease helping a dyadic partner that is not reciprocating. Though this fits with recent advances in theory in that it suggests the instrumentality of the dyadic relationship may become less important over time (e.g., Ferris et al., 2009), the overall dynamics of this complex relationship are not yet clear.

## **1.b Plan for the Dissertation**

In summary, the objectives of this dissertation are as follows: first, I will examine the manner in which time plays a role in the helping behavior in negative reciprocity settings with the prediction that the basic linear relationships between reciprocity and helping do not hold over time. Second, I will examine two variables that impact the point of nonlinear change in helping behavior in negative reciprocity settings: team member efficacy within the dyadic relationship and the nature of relationships external to the dyadic relationship. To that end, I have proposed three studies. The first two will utilize a similar experimental procedure and will achieve the general objective of testing nonlinear change and moderators that are internal and external to the dyadic relationship. The third study is a field study that will achieve the objective of a deeper exploration of the relationships external to the dyad.

## CHAPTER 2

### LITERATURE REVIEW

#### **2.a Antecedents of Helping**

In the management field, social exchange theory (SET) and equity theory remain the primary frameworks for exploring reciprocal investment behaviors such as helping (Cropanzano & Mitchell, 2005). Helping behaviors are often exchanged in work relationships to gain favors or repay social debts (Blau, 1964). SET proposes that helping will occur as part of a reciprocal exchange between partners. Individuals in a social exchange relationship will help one another based on an expectation of future help in return. Similarly, equity theory proposes that an individual will regulate their inputs based on outputs received.

Calculations for engaging in helping behaviors vary, based both on individual and group properties (Flynn & Lake, 2008). SET and equity theory primarily focus on individuals' assessments of their partner when determining the costs and benefits of helping (e.g., Ames, Flynn, & Weber, 2004; Flynn, 2003; Organ & Konovsky, 1989). These assessments include the likelihood of return (i.e., reciprocity) as well as perceptions of their partners' ability. Both of these factors influence the likelihood of investment behaviors within a dyadic relationship. One rather fundamental issue that has yet to be addressed with respect to this phenomenon is the role of external factors that may influence helping behaviors towards an exchange partner. To put it simply, prior management research examining exchanges often ends at the dyad without considering the context under which the exchange occurs.



Literature has largely ignored the impact of external indicators such as environmental factors or third party behaviors on an individual's decision to help an exchange partner. This is an issue because employee exchange relationships are embedded in a larger organizational context that can impact investment decisions between two exchange partners despite individual evaluations (Belmi & Pfeffer, 2015). For example, an employee may feel forced to help a poorly performing partner due to organizational or peer pressures. Determining the impact of external indicators of investment provides a more nuanced understanding of exchange relationships within an organizational context and may explain why individuals will continue to help when their partner will not reciprocate. In this section, I briefly review two major individual-level (i.e., reciprocity, perceptions of partner) antecedents of helping, how their relationship with helping may change in the presence of external variables, and discuss hypothesized relationships.

### *Reciprocity as an Antecedent of Helping*

Reciprocity encompasses investment of personal resources in another individual with the expectation that the target of the investment will provide a valued return of some kind (Gouldner, 1960). The assets exchanged may be valued for a number of reasons: they may be directly tied to work tasks, indicate positive social or economic support, or be symbolic of a high quality relationship (Blau, 1964; Settoon, Bennet, & Liden, 1996). For example, extra-role behavior (e.g., exerting extra effort or taking on a larger workload than formally required) is recognized as a common exchange commodity (Banks, Batchelor, Seers, O'Boyle, Pollack, & Gower, 2014; Katz & Kahn, 1966; Levinson, 1965; March & Simon, 1961). In the same vein, helping has been categorized as an organizational citizenship behavior (Organ, 1988), prosocial organizational behavior (Brief & Motowidlo, 1986), altruistic act (Smith, et al., 1983), and a motivational state

(Penner, Fritzsche, Craiger, & Friefeld, 1995). Table 1 provides an overview of the various conceptualizations of helping, which is a commonly studied outcome in studies examining reciprocity.

Table 1.1: Dimensions of Helping

Dimension	Definition	Reference
OCBI	Helping is an OCB directed towards others	Spector & Fox, 2002
Prosocial behavior	Helping is used to initiate or mend relationships	Brief & Motowidlo, 1986
Altruistic act	Helping is an altruistic act not tied to compliance	Smith, Organ, & Near, 1983
OCB	Helping can be directed towards the organization (OCB-O) or an individual (OCB-I)	McNeely & Meglino, 1994
OCB	Helping includes voluntary behaviors performed to aid or assist other organizational members with work-related tasks	Podsakoff, MacKenzie, Beth, & Bachrach, 2000
Helpfulness	Helpfulness is the willingness and capability to help, coupled with the ability to distance oneself emotionally from another in distress	Penner, Craiger, Fritzsche, & Friefeld, 1995
OCBI	Helping is comprised of altruism, courtesy, peacekeeping, and cheerleading	Bachrach, Bendoly, & Podsakoff, 2001; MacKenzie et al., 2001; Podsakoff & MacKenzie, 1994

The reciprocity ratio (i.e., how much effort/benefits are perceived to be both given and received) drives perceived reciprocity (Smets et al., 2004). Thus reciprocity should not be framed along a continuum of “high” to “low” as much as it should be framed as falling along a continuum of “equal” to “unequal” based on the ratio of perceived contributions to benefits. Research suggests that when individuals experience a favorable reciprocity ratio, helping behaviors are more likely (Coyle-Shapiro et al., 2004; Deckop, Cirka, & Andersson, 2003; Robinson & Morrison, 1995). The reciprocity ratio is calculated by subtracting the ratio of partner’s benefits to inputs from the ratio of self-perceived benefits to inputs. A positive value is

indicative of favorable or positive reciprocity (more benefits than one's partner when comparing inputs and outputs) while a negative value is indicative of unfavorable or negative reciprocity (receiving fewer benefits than one's partner when comparing inputs and outputs).

The reciprocity ratio invokes Adam's equity calculus (Adams, 1965), which provides a conceptual framework to understand how inputs change in conjunction with expected outputs. When a reciprocity ratio falls into a positive or negative status (i.e., one perceives they are receiving greater or lesser benefit than an exchange partner given relative inputs), an individual should feel tension to modify their investment to match expected returns (Robinson & Morrison, 1995). Further, as the reciprocity ratio approaches equality (i.e., zero), investment behaviors (in this case, helping) should stabilize. Stabilization does not indicate that contributions will stop, only that they cease to fluctuate.

The influence exerted by the norm of reciprocity continues over time and is impacted by past interactions (Deckop et al., 2003; Gouldner, 1960). As such, it remains a powerful predictor of exchange contributions throughout the duration of an exchange (Deckop et al., 2003). As more interactions occur in an exchange relationship, perceptions of reciprocity should become stronger and begin to stabilize. As these perceptions gain in strength, it takes more substantial variation in contribution ratio to change the perception. For example, if an exchange relationship has historically been positive, a single negative event is unlikely to heavily influence perceptions of reciprocity. This suggests that major fluctuations in investment behaviors should occur earlier in the exchange before stabilizing.

Reciprocity shares a positive relationship with helping in organizational settings (e.g., Deckop et al., 2003; Ehrhart, Bliese, Thomas, 2006; Kamdar, McAllister, & Turban, 2006; Ladd & Henry, 2000). Theoretically, helping is considered a resource investment and an exchange

behavior (Emerson, 1976; Hobfoll, 2001). Under SET, an individual should engage in helping behaviors when he or she believes the behavior will yield a favorable outcome within the relationship (e.g., positive return, future reciprocity).

In this dissertation, I test the assumption that reciprocity leads to sustained helping behaviors over time. Research indicating reciprocity as a driving force in work relationships has led to the assumption that these relationships evolve in a pattern consistent with linear growth (e.g., Deckop et al., 2003; Kim et al., 2009). However, other empirical work indicates that relationships fluctuate over time rather grow in a linear fashion (e.g., dialectical views of relationships; Baxter, 1988, 1990; Becker et al., 2009). In fact, recent theory examining helping behaviors in the workplace is beginning to recognize fluctuations in dyadic relationships (Halbesleben, 2012).

Recent empirical evidence suggests that the impact of reciprocity varies over the course of a relationship (Bamberger, 2009; Cropanzano & Mitchell, 2005). For example, Bamberger (2009) proposed a multi-phase model of employee helping where reciprocation is less important in the case of spontaneous helping, but becomes more important when helping is solicited and returns are more easily negotiated. Additionally, Ferris and colleagues (2009) found that dimensions of work relationships change in importance over the history of the relationship. Here, I further explore these ideas through the direct examination of fluctuations in helping behavior over time. Specifically, I believe that helping behaviors fluctuate in non-linear patterns over time in situations of negative reciprocity. Further, these fluctuations are most likely to occur early in the exchange relationship.

*Hypothesis 1: Helping behaviors will decrease over time in a discontinuous fashion such that helping behaviors will suddenly decrease over time.*

*Hypothesis 2: Discontinuous changes in helping behaviors will occur earlier and with greater magnitude in negative reciprocity relationships.*

### *Perceived Team Member Efficacy as an Antecedent of Helping*

Perceived team member efficacy (TME) is used as an estimator of investment value (Chiabaru & Harrison, 2008). As such, it affects one's willingness to engage in exchange behaviors (Tepper, Duffy, Hoobler, & Ensley, 2004). TME offers evidence that an individual is (1) capable of completing valuable work tasks and (2) has higher chance of reciprocating through valuable, work-relevant exchanges. For example, helping behaviors may be reciprocated more often by high performers than low performers because low performers are unable to provide valuable reciprocation behaviors (LePine & Van Dyne, 2001). High TME is a reflection of an individual's ability to complete work tasks and may signal that an individual more likely to be a better partner (Halbesleben & Wheeler, 2015). However, some research suggests that low TME can potentially catalyze helping behaviors in order to ensure task completion (Jackson & LePine, 2003).

In general, individuals help people with high TME because doing so is perceived to be a good return on investment (Zellars & Tepper, 2003). But, this calculation only holds in neutral reciprocity situations – one where the contributions and outcomes of each dyadic partner are equal (Gouldner, 1960). In a positive or negative reciprocity relationship, individuals must judge expectations of return based on their partner's abilities (i.e., TME) as well as the reciprocity norms established in that relationship. As such, the effect of TME in an exchange relationship

may be heavily impacted by the reciprocity ratio. This may be particularly true in a negative reciprocity relationship where investments do not yield returns. In fact, the presence of only one unhelpful group member can significantly impact the formation of helping norms (Raver, Ehrhart, & Chadwick, 2012).

In negative reciprocity situations, individuals should initially invest more resources in high TME partners, but quickly withdraw as the lack of returns becomes apparent. The initial helping behaviors would signal that the individual expects returns, but when those returns are not produced there is no incentive to continue investing. A high TME partner is able to complete his or her tasks and is not reciprocating, so helping becomes a waste of resources. Conversely, individuals should be hesitant to initially help low TME partners, but then realize that helping is necessary to get the job done. Here, sustained helping should be more likely to occur. While individuals may eventually withdraw from helping a low TME partner, they should help for a longer period of time than with high TME partners. In other words, the starting point and duration of helping differs due to perceptions of TME. Pilot data collected for this dissertation reflects these patterns, as can be seen in Figure 1.

Figure 2.1: Sustained Helping Behaviors of Subjects in a Negative Reciprocity Relationship

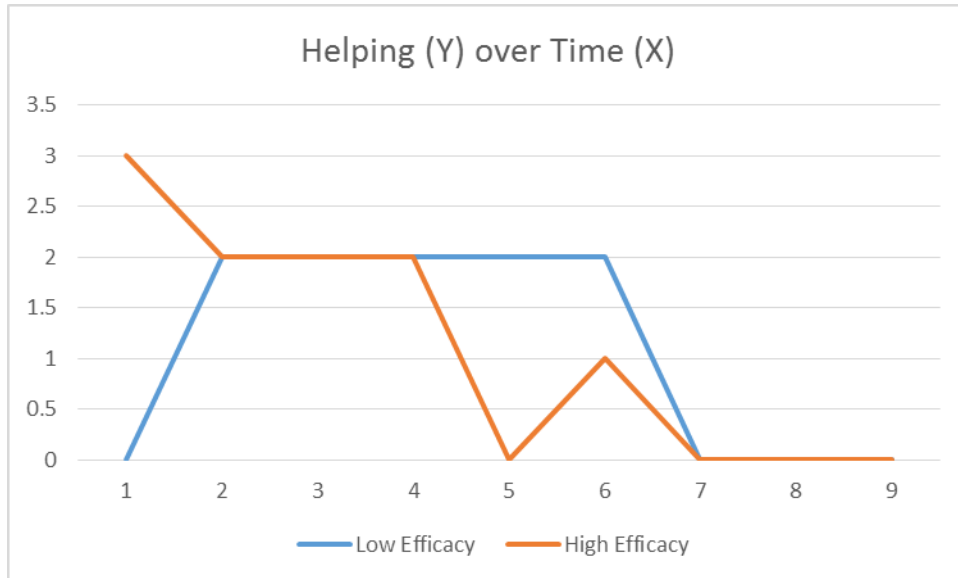


Figure 1 shows the helping patterns of two subjects pulled randomly from the dissertation pilot data. Both subjects are in a negative reciprocity relationship. The blue line represents the helping patterns of a subject working with a low TME partner. Initially, the subject offers no help to the partner. However, the subject quickly begins helping the partner in order to increase overall performance. This can be seen from Time 2 – Time 6, where the subject consistently helps the partner. At Time 7, helping behaviors cease completely for the duration of the task. The orange line represents helping patterns of a subject reporting high levels of TME. In this case, helping behaviors are immediate and high. But, this pattern is not sustained. For this subject, helping behaviors drop almost completely after Time 4, with only a single additional instance of helping at Time 6.

Combined, these arguments highlight the need to more carefully examine how dyadic helping occurs over time. Specifically, they lead to the following hypotheses related to the initial investment of helping behaviors and the impact that TME has on change in helping behavior over time.

*Hypothesis 3: Higher perceived TME is associated with higher levels of initial helping behavior.*

*Hypothesis 4: Over time, the point at which helping declines for those in negative reciprocity settings is earlier for individuals perceiving higher levels of TME than for individuals perceiving lower levels of TME.*

## **2.b The Impact of External Relationships on an Exchange Relationship**

Traditionally, the management literature has focused on local, dyadic indicators of investment when exploring exchange relationships (Venkataramani & Dalal, 2007). Antecedents of exchange behaviors such as helping have been studied most often through individual differences (e.g., altruism, personality) and attitudes (e.g., reciprocity, perceptions of exchange partner). However, more recent research has begun to examine the impact of external relationships on exchange behaviors as well as how the importance of exchange relationships changes over time (e.g., Bowler & Brass, 2006; Ferris et al., 2009). Extending this research, I examine the impact of external relationships on dyadic helping behavior. Specifically, I explore how the act of observing third-party helping behaviors influences the helping behaviors of individuals in an exchange relationship.

Given the strength of the relationship between group OCBs and group effectiveness (Nielsen et al., 2009; Podsakoff et al., 2009), scholars must better understand the influence of third parties on helping behaviors within an exchange (Ng & Van Dyne, 2005; Raver et al., 2012). This is increasingly true as work becomes more interdependent and organizations develop more team-based structures of operation (Ilgen & Pulakos, 1999). As such, the influence of third party behaviors on dyadic exchanges may be especially impactful on workplace helping behaviors.



Employees may have generalized exchange relationships with many of their coworkers while maintaining specific dyadic exchange relationships with a small number of direct exchange partners (Blau, 1964; Levi-Strauss, 1969; Flynn, 2005). With this in mind, employees will remain cognizant of their external relationships even when interacting at a local, dyadic level. Further, they will look to those external relationships as signals of investment behaviors within the dyad (Tangirala Green, & Ramanujam, 2008). Outside of the dyadic exchange, signals for helping can come from an individual's more general, external work relationships such as shared, third-party relationships (Ekeh, 1974; Flynn, 2005). As a result, shared third-party relationships have been implicated in predicting exchange behaviors (Venkataramani & Dalal, 2007).

It is well known that employees take behavioral cues from coworkers (Buchanan & O'Connell, 2006; Duchon, Green, & Taber, 1986; Tangirala, et al., 2008). These cues often act as learning tools that can be used to determine norms and values in a given situation (Bandura, 1977; Labianca, Brass, & Gray, 1998). Further, these cues become more salient based on the strength of the relationship (Bandura, 1986). This is especially true when an individual is uncertain of appropriate behaviors (Wood & Bandura, 1989).

When an employee is unsure how to react to a given situation, they are most likely to scan the environment and imitate the behaviors of relevant others (Aguinis & Kraiger, 2009). In a group setting, a relevant other is often a shared connection with ties to multiple group members (e.g., a supervisor or coworker; Burke & Hutchins, 2007). Further, these third-party members are important because they may share a stake in a group task, be likely to return investment behaviors, or be recognized contributors to the group's goals (Wood & Bandura, 1989). As such, these individuals provide valuable social learning cues to employees dealing with novel or

uncertain circumstances. In an exchange relationship, the violation of reciprocity norms creates an uncertain situation for employees.

In a negative reciprocity relationship, the past action of helping has clearly led to failure. However, employees often feel compelled to maintain group norms of helping (Raver et al., 2012). For example, in an organizational context, it is often expected that employees help each other. In negative reciprocity relationships, the employee is receiving little to no benefits for helping. With the logical option of termination off the table, the employee must identify an appropriate response. In an organizational context, peers provide models of ideal behavior.

As an extension of my previous hypotheses, I will examine how an external relationship (i.e., a shared third-party member) will influence helping behaviors in an exchange. Research suggests that an employee may take helping cues from other coworkers in a joint task (Chen, Takeuchi, & Shum, 2013), which will translate to helping behaviors in an exchange. That is, observing third-party helping behaviors towards an exchange partner will influence an individual's helping behaviors through the modeling process.

Group members influence individual behaviors through stimuli that provide cues about appropriate attitudes and behaviors within a group (Hackman, 1992; Ng & Van Dyne, 2005). Initially, individuals will imitate observed behaviors as closely as possible in order to align with group norms (Bandura, 1977; Hackman, 1992). Often, this is an attempt to increase the likelihood of returns by elevating one's group status through appropriate behaviors (Flynn, Reagans, Amanatullah, & Ames, 2006). In groups, exchange behaviors (i.e., giving help) make other group members more willing to reciprocate (Anderson, John, Keltner, & Kring, 2001). As such, an individual will imitate third-party member behaviors in order to both align with group norms and increase future likelihood of return from group members. As these behaviors are

imitated and repeated, group norms of helping behavior are established (Hackman, 1992). As a helping context develops, it is likely that an individual will sustain his or her helping behaviors when working with group members. In summary, I predict that an individual will imitate third-party helping behaviors towards an exchange member and sustain these behaviors over time due to the creation of a group norm of helping.

The final purpose of this dissertation is to more deeply explore how external relationships influence helping in a dyad. In Study 2, I explore the impact of external relationships on helping behaviors over time through an experiment that provides feedback regarding the helping behaviors of a third-party member towards an individual's exchange partner. Research suggests that employees are sensitive to third-party behaviors and will observe social cues to infer behavioral norms. As such, I expect that helping behaviors of a third-party will influence initial helping behaviors in an exchange relationship (i.e., the intercept), as well as the slope of helping behaviors over time.

*Hypothesis 5: Higher perceived third-party helping behaviors are associated with higher levels of initial helping behaviors in a dyadic exchange relationship*

*Hypothesis 6: Over time, the point at which helping declines for those in negative reciprocity settings is later for individuals perceiving higher levels of third-party helping behaviors than for individuals perceiving lower levels of TME.*

## CHAPTER 3

### METHODS

This chapter describes the design, sampling, procedures, measures, and analysis techniques that were used to test my hypotheses. This dissertation included three studies. Studies 1 and 2 used an experimental procedure that required an individual to perform ten sessions of a proofreading task adapted from Brockner, Greenberg, Brockner, Bortz, Davy, and Carter (1986). The individual was asked to complete the entire protocol online and was paired with a simulated partner (discussed in more detail below). Subjects were not aware that their partner was simulated. All subjects believed they were working with another person throughout the duration of the task. Rewards were based on overall performance to simulate interdependence in the task. Study 1 tested the nonlinear change of helping behaviors over time. The purpose was to identify inflection points where helping changed discontinuously. Additionally, Study 1 tested the moderating effect of perceived team member efficacy on the location of inflection points in helping behaviors over time. Study 2 introduced a third-party (also simulated) that exhibited high or low helping behaviors towards a subject's partner. The purpose was to observe the impact of third-party helping on the subject's helping behaviors towards his or her partner. Study 3 was a field study designed to test the experimental findings in a field setting.

#### **3.a Study 1: Test of Discontinuous Change in Helping Behavior over Time**

As previously discussed, the experimental procedure was adapted from a proofreading task used Brockner and colleagues (1986) to observe work performance based on an equity

theory framework. In this case, an experiment allowed me to observe subjects' engagement in helping behaviors in response to an interdependent task. I was also able to control the quality of the exchange relationship for each subject.

In the experiment, each individual was asked to proofread three paragraphs at a time and correctly identify the amount of errors in each paragraph. The subject was told that they were completing the task with a partner and would be rewarded based on overall group performance. However, the partner was simulated. I chose to simulate a partner for several reasons. First, I was able to ensure that every subject was in a negative reciprocity relationship. At no point was any subject paired with a partner that engaged in helping behaviors. Second, the creation of a false partner allowed me to manipulate partner performance. This created situations where a subject could be in a negative reciprocity relationship with either a high or low performing partner. Finally, simulating a partner prevented a situation where a subject was left with a partner that dropped out of the study.

Following each proofreading session, subjects were given feedback about their own performance and their partner's performance. Following performance feedback, individuals were given the opportunity to help their partner by taking up to five additional lines (i.e., up to an entire additional paragraph) for the next session of proofreading. By repeating the proofreading task for ten sessions, I was able to model fluctuations in helping behaviors over each session. I also measured perceptions of reciprocity and TME between each session to determine their effects on helping.

### *Sample and procedures*

Subjects were recruited from junior- and senior-level management courses through in-class announcements. The average age of subjects was 21.2 years and 44% were females.

Subjects were offered extra credit for participation. Additionally, subjects had the opportunity for an additional twenty-five dollar bonus if their group performance was the highest in order to further incentivize task performance and reinforce consequences for low performance. The sample was comprised of 135 participants. Fourteen subjects dropped out of the study at various times, leaving a usable sample of 121 subjects.

After subjects were recruited for the study, they were assigned a time to participate in the experimental task. All experimental data were collected through electronic surveys and a proofreading task administered online. Subjects accessed the study through a secure online portal provided by the researcher. Upon access, subjects were asked to complete a questionnaire containing demographic information, personality measures, and an altruism scale before receiving instructions regarding the task.

Following completion of the questionnaire, subjects were instructed they would be randomly paired into dyads and would (1) work on a proofreading task, (2) receive feedback on their performance and their partner's performance, (3) fill out a survey to measure perceptions of reciprocity and TME, (4) have the option of helping their partner by taking on more lines for the following session, and (5) work on the next session of the proofreading task. The alleged purpose of the proofreading task was to develop some standardized tests of cognitive performance. Subjects were told that, in order to increase accuracy of the test, there would be ten repeated sessions of the task. Further, it was communicated that performance will be judged based on overall team performance and not individual performance, hence the option to help their partner. They were told that the highest performing pair would win an additional twenty five dollar cash prize above and beyond their extra credit.

Next, subjects began the online proofreading task with their simulated partner. The subjects were given three minutes to read a three-paragraph section of the book *The Death and Life of Great American Cities* by Jane Jacobs. They engaged in ten rounds of this proofreading task, for a total of 30 minutes of proofreading. In order to proofread the manuscript, each subject was given a flawless Master Copy of the manuscript to use when identifying errors. The computer screen showed the three error paragraphs on the left side and the corresponding flawless paragraphs on the right. At the end of each paragraph, the subjects indicated how many errors were present in the paragraph (see Figure 3 for a sample of the experimental layout).

After each round, the subject's performance and partner's performance was reported to the subject before beginning the next session. Subjects were placed in an experimental group with high or low partner performance feedback. This feedback was calculated based on a separate pilot sample that was used to identify average accuracy scores. Pilot testing included administration of the proofreading task to 79 undergraduate students recruited from business courses. Each undergraduate was asked to complete a single, three-minute round of the proofreading task. The average amount of lines completed was 20.67 (roughly three paragraphs) and the average number of errors identified was 25.34, with a standard deviation of 8.4. This suggests a challenging task with a moderate amount of variance in performance between subjects. For respective conditions, high performance scores were two standard deviations above average (42) and low were two standard deviations below average (9).

Following the presentation of performance feedback, the subject was asked: (1) to complete the reciprocity and team member efficacy surveys and (2) if the subject wished to help their partner by taking on up to five additional lines to proofread during the next iteration of the task. After that, the next round began. The same process was followed for each round.

Upon completion of the task, subjects were debriefed. During this time, they were told that they were paired with a simulated partner and that the performance feedback and helping behaviors of their simulated partner were manipulated by the researcher. They were told the true purpose of the experiment was to measure helping behaviors over time in a negative reciprocity relationship. Finally, the subjects were given an opportunity to ask questions and discuss the experiment in depth with the researcher and with each other.

### *Measures*

**Reciprocity.** Reciprocity was measured using a technique similar to van Dierendonck, Schaufeli, and Buunk (2001) and Smets et al. (2004), which is based on the equity formulas proposed by Adams (1965). Specifically, the questionnaire had four questions that reference the relationship between the subject and his or her partner: “Overall, how much effort do you feel you put into the relationships with this partner?”, “Overall, how much do you feel your partner puts into the relationship with you?”, “How much benefit do you feel you receive from the relationship that you have with this partner?”, and “How much benefit do you feel your partner receives from their relationship with you?” Each question was scored on a five-point scale from very little (1) to very much (5). From these items, a reciprocity ratio can be calculated by subtracting the ratio of partner’s benefits to the partner’s inputs from the ratio of self-perceived benefits to the self-perceived inputs.

**Perceptions of Team Member Efficacy.** This seven item questionnaire will be adapted from the Riggs, et al., 1984 collective efficacy scale to focus on perceptions of a single team member instead of a team as a whole. The alpha value was .84. All questions will be rated on a Likert scale of 1) strongly disagree to 5) strongly agree. An example question is “This individual has the ability to complete work tasks.”



**Helping.** Helping was measured based on how many lines of additional proofreading a subject takes on for each iteration of the task. After each iteration, subjects were given the opportunity to add up to five lines of additional proofreading for the next iteration of the task. This created an objective, repeated measure of helping behavior.

#### *Control Variables*

I controlled for altruism and agreeableness in this study. I also collected demographic information on participants.

Altruistic individuals are generally concerned with improving the welfare of others, even at the cost of additional resources (Wang & Wang, 2008). This may be particularly true for new relationships (Ferris, et al., 2009). Further, altruistic individuals are more likely to engage in prosocial behaviors above and beyond what is called for in a reciprocal relationship (Jones & George, 1998; Wang & Wang, 2008). Since altruistic individuals are less likely to weigh potential returns as heavily as less others, the presence of altruism must be taken into account when studying reciprocal relationships. As such, altruism was measured and controlled for in this study.

Agreeableness is usually manifested through friendly, courteous, trusting, and tolerant behavior (Barrick & Mount, 1993; Costa & McCrae, 1992). Further, it has been linked to helping as a prosocial behavior within and across groups and various work situations (Graziano, Habashi, Sheese, & Tobin, 2007; King, George, Hebl, 2005). Finally, agreeableness increases the quality of exchange relationships through a higher likelihood of reciprocation from highly agreeable individuals (Kamdar & Van Dyne, 2007). So, agreeableness was also be measured and controlled for in this experiment.

**Demographics.** Demographic information including age, gender, and previous work experience was collected.

**Altruism.** Altruism was measured using four items taken from Podsakoff et al.'s (1990) measure of organizational citizenship behavior. The alpha value for this scale was .76. All items were rated on a Likert scale of 1) strongly disagree to 5) strongly agree.

**Agreeableness.** Agreeableness was measured using a 10-item personality scale with items ranked from 1) strongly disagree to 5) strongly agree. The alpha value for this scale was .81. Sample items included "I believe that other people have good intentions" and "I accept people as they are."

#### *Analysis*

Data were analyzed using discontinuous growth modeling, a process that maps nonlinear changes in variables at a given point in time. This analysis allowed me to identify transition points in my data where helping behaviors were most likely to change. I analyzed the data using random coefficient modeling testing a mixed-effects model for discontinuous change (Singer & Willett, 2003) using Mplus Version 7 (Muthén & Muthén, 2010). All models were two-level models where the ten measurements occasions (Level 1) were nested within individuals (Level 2). At each measurement occasion, data was collected for reciprocity, perceptions of TME, and helping. This allowed for an examination of change in helping behaviors over time using reciprocity, TME, time, and transitions as predictors.

### **3.b Study 2: Test of the Moderating Effect of an External Relationship**

Study 2 was an experimental study designed to the impact of third-party helping on that exchange behaviors within a dyad. The same experimental procedure described in Study 1 was used. In this iteration of the experiment, each subject was provided with manipulated feedback regarding a third-party's helping behaviors towards the subject's exchange partner.

### *Samples and Procedures*

The sample and procedures for this study mirrored Study 1 in terms of sample size (n=160) and proofreading task. Participants averaged 21 years of age and were majority males (66%). Further, the measures for reciprocity, perceived team member efficacy, helping, and control variables (i.e., demographics, altruism, agreeableness) were used and administered in an identical fashion to Study 1. However, subjects were randomly placed into conditions that manipulated third-party helping feedback.

Third-party helping feedback, which was always be targeted towards the individual's exchange partner, was provided at the end of every proofreading session before the subject was given the chance to help. This provided a social cue that the individual could assess before determining how much to invest in his or her exchange partner. Helping behaviors were displayed as either high or low based on the actual helping behaviors exhibited by subjects in Study 1. The average helping behavior in Study 1 was 1.95 with a standard deviation of .44. High third-party helping behavior was set at two standard deviations above the average helping behaviors of the subjects in Study 1 (3 lines of helping per session). Low third-party helping behavior was set at two standard deviations below the average helping behaviors of the subjects in Study 1 (0 lines of helping per session).

### *Analysis*

Data were analyzed using discontinuous growth modeling using similar equations to Study 1. I analyzed the data using random coefficient modeling testing a mixed-effects model for discontinuous change (Singer & Willett, 2003) using Mplus Version 7 (Muthén & Muthén, 2010). All models were two-level models where the ten measurements occasions (Level 1) were nested within individuals (Level 2). At each measurement occasion, data were collected for reciprocity, perceptions of TME, and helping. The experimental condition of high or low third-

party helping was dummy coded (0 = low, 1 = high) and included as a Level 2 variable in the models.

### **3.c Study 3: Field Study of Helping Behaviors over Time**

Study 3 was a field study designed to compare a field sample's helping behaviors to the patterns of helping behaviors found in the experiments. Participants (n=155) were recruited using an email list of licensed nurses in the Midwest United States. Participants' average age was 36.2 years and 91% of respondents were female. Nursing is a setting with a highly interdependent quantity of work with high amounts of helping behaviors documented among this population (Grant & Patil, 2002; Griffin, Neal, & Parker, 2007).

#### *Procedures*

A field survey design was used to explore how perceptions of coworkers and reciprocity ratios affected helping behaviors. Subjects were asked to answer the survey questions for two coworkers. One that they believed was their most helpful coworker and one that they believed was their least helpful coworker (Fiedler, 1967). The survey included questions about the subjects' helping behaviors towards their coworkers, reciprocity and perceptions of their coworkers' efficacy.

An email list of registered nurses working in Minnesota, obtained from the state board of nursing, was utilized to survey subjects. The contact email directed nurses to a secure online portal where they were asked to fill in the survey. Additionally, demographic information was collected using the same survey from Study 1.

#### *Measures*

The measures used in this study included reciprocity, perceived TME, and helping. Additionally, I controlled for conscientiousness, agreeableness, and altruism. The questionnaires were the same that were used Studies 1 and 2 for all variables except for helping.

**Helping.** Helping was measured using Settoon and Mossholder's (2002) helping scale. This fourteen-item questionnaire measures passive helping behaviors (8 items,  $\alpha=.91$ ) and active helping behaviors (6 items,  $\alpha=.93$ ). Items will be adapted to refer to a specific coworker. All questions will be rated on a Likert scale of 1) strongly disagree to 5) strongly agree. An example question of passive helping is "I listen to this coworker when they have to get something off their chest." A sample active helping item is "I assist this coworker with heavy workloads even though it is not part of my job."

**Reciprocity** Reciprocity was measured using a technique similar to van Dierendonck, Schaufeli, and Buunk (2001) and Smets et al. (2004), which is based on the equity formulas proposed by Adams (1965). Specifically, the questionnaire has four questions that reference the relationship between the subject and his or her partner: "Overall, how much effort do you feel you put into the relationships with this partner?", "Overall, how much do you feel your partner puts into the relationship with you?", "How much benefit do you feel you receive from the relationship that you have with this partner?", and "How much benefit do you feel your partner receives from their relationship with you?" Each question will be scored on a five-point scale from very little (1) to very much (5). From these items, a reciprocity ratio can be calculated by subtracting the ratio of partner's benefits to the partner's inputs from the ratio of self-perceived benefits to the self-perceived inputs.

**Perceptions of Team Member Efficacy.** This seven item questionnaire was adapted from the Riggs, et al., 1984 collective efficacy scale to focus on perceptions of a single team

member instead of a team as a whole. The alpha value for this scale was .89. All questions were rated on a Likert scale of 1) strongly disagree to 5) strongly agree. An example question is “This individual has the ability to complete work tasks.”

#### *Control Variables*

**Demographics.** Demographic information including age, gender, and previous work experience was collected.

**Altruism.** Altruism was measured using with four items taken from Podsakoff et al.’s (1990) measure of organizational citizenship behavior. The alpha value for this scale was .83. All items will be rated on a Likert scale of 1) strongly disagree to 5) strongly agree.

**Agreeableness.** Agreeableness was measured using a 10-item personality scale with items ranked from 1) strongly disagree to 5) strongly agree. The alpha value for this scale was .78. A sample items are “I believe that other people have good intentions” and “I accept people as they are.”

#### *Analysis*

I used random coefficient modeling (i.e., multilevel modeling) for model testing. At Level 1, the model included within-level data for perceptions of reciprocity, perceived efficacy, and helping behaviors for both most and least helpful coworkers as indicated by the subjects (n=310). Level 2 data were examined at the individual level (n=155).

## CHAPTER 4

### RESULTS

#### **4.a Study 1: Reciprocity and Perceptions of Partner Efficacy**

##### *Hypothesis Testing: Discontinuous Growth Modeling*

I used discontinuous growth modeling (i.e., multilevel modeling) to test all hypotheses in Study 1. At Level 1, the model included within-level data for perceptions of reciprocity, perceived efficacy, transition parameters and helping (n=886). Level 2 data included group assignment (paired with a high or low performing partner) and were examined at the individual level (n=121).

Table 4.1 includes the means, standard deviations, and bivariate correlations of the primary measures. Table 4.2 is an example of how data was coded for each participant. Table 4.3 shows the results from the random coefficient modeling used to test hypotheses. The ICC(1) value for the dependent variable was high (.71), suggesting significant variability between persons and justifying examination of the Level 2 variables (Bliese, Wesensten, & Balkin, 2006). All reported results are unstandardized.

Table 4.1: Means, Standard Deviations, and Correlations, for Study 1 Level 1 Variables

Variable	Mean	S.D.	1	2	3	4	5	6
1. Helping	1.53	.99						
2. Reciprocity	-.21	1.32	-.20					
3. Team Member Efficacy	3.20	.57	-.21*	.55*				
4. Time	5.00	2.59	-.11	-.11	-.03			
5. Transition (Time 2)	1.00	.33	-.06	-.04	-.01	.48*		
Control Variables:								
Agreeableness	3.72	.51	-.08	.16	.26	.03	.01	N/A
Altruism	3.86	.55	.13	.17	.20	-.01	-.05	N/A

Note: N = 121.

1) Correlations were calculated between individuals, using each participant's mean scores for the task.

2) \*  $p < .05$



Table 4.2: Sample data structure for a participant

Participant	TIME	REC	TME	HELPING	TRANS1	GROUP
2	0	N/A	N/A	N/A	0	1
2	1	0.40	4.29	0.00	0	1
2	2	0.00	3.14	0.00	1	1
2	3	-1.50	2.71	0.00	1	1
2	4	-4.80	2.57	1.00	1	1
2	5	-4.80	2.29	3.00	1	1
2	6	-4.80	2.71	5.00	1	1
2	7	-4.80	2.71	5.00	1	1
2	8	-4.80	2.43	0.00	1	1
2	9	-4.80	2.57	0.00	1	1
2	10	-4.80	3.00	N/A	1	1

*Note:* REC = reciprocity ratio, TME = perceived team member efficacy, TRANS1 = parameter for transition from Session 1 to Session 2, GROUP = experimental group (0 = low performing partner, 1 = high performing partner).

Table 4.3: Discontinuous Mixed-Effects Growth Models Predicting Change in Helping Behavior as a Function of Reciprocity and Perceived Team Member Efficacy. Between group effects of partner performance and Time 1 TME (Study 1)

Variable	Coef.	SE
<b>Fixed Effects</b>		
Intercept	1.55	1.33
TIME	-.01	.02
REC	-.10	.07
TME	-.23*	.12
TRANS	-.59**	.15
<b>Variance SD</b>		
<b>Random Effects</b>		
Intercept	.66	.39
GROUP	.38	.35
TMET1	.35	.39
Residual	2.4**	.29
<b>Fit Indices</b>		
-2 Log Likelihood	1378.36	
AIC	2634.47	

*Note:* N = 120, k = 886. REC = reciprocity ratio, TME = perceived team member efficacy, TRANS = parameter for transition from Session 1 to Session 2, GROUP = experimental group (0 = low performing partner, 1 = high performing partner).

\*  $p < .05$ , \*\*  $p < .01$

### *Level 1 Analysis*

Discontinuous change effects were modeled following the recommendations of Singer & Willet (2003). To test Study 1 hypotheses, I collected self-report survey data for reciprocity and perceptions of partner efficacy at each time period. I also modeled time and created transition variables to test if discontinuous changes existed in helping at any time period. Following exploratory analysis of potential transitions, the data reflected only one significant transition at Time 2. As such, all other transition variables were dropped from the model. This resulted in the following Level 1 equation to test Hypotheses 1 and 3:

$$\text{Helping}_{ij} = \pi_{0i} + \pi_{1i}(\text{REC}) + \pi_{2i}(\text{TME}) + \pi_{3i}(\text{TIME}) + \pi_{4i}(\text{TRANS2}) + \varepsilon$$

Hypothesis 1 predicted that helping behaviors would decrease in a discontinuous fashion. The results of this hypothesis test are reported in Table 4.3. A significant transition was found at Time 2 (transition parameter,  $\beta = -.59$ ,  $p < .01$ ), supporting hypothesis 1. The data indicate that a sudden, downward shift in helping behaviors occurred following the second proofreading session.

Hypothesis 3 predicted that higher perceived efficacy would be associated with higher levels of initial helping behavior. Table 4.3 shows that changes in TME significantly predicted changes in helping behavior over time ( $\beta = -.23$ ,  $p < .05$ ). However, TME at Time 1 was not a significant predictor of the Time 2 transition in helping behaviors ( $\beta = .34$ ,  $p > .05$ ). This suggests that fluctuations in TME was an important determinant when predicting changes in helping across the duration of the task, but was not the cause of the downward transition of initial helping behaviors.

### *Level 2 Analysis*

Hypothesis 2 predicted that discontinuous changes in helping behaviors would occur earlier and with greater magnitude in negative reciprocity relationships. Table 4.4 shows the results of this hypothesis test. The model supports this hypothesis and shows that reciprocity is a significant predictor of the transition in helping behavior ( $\beta = -.50, p < .01$ ). This suggests that, although changes in reciprocity may not be significant predictor of changes in helping across time periods, an individual's overall perception of reciprocity influences the downward transition in helping behavior near the beginning of the task. Level 2 equations can be seen below:

$$\pi_{0i} = \gamma_{00} + \gamma_{01}(\text{RECTOTAV}) + \zeta_{0i}$$

$$\pi_{1i} = \gamma_{00} + \gamma_{01}(\text{RECTOTAV}) + \zeta_{0i}$$

$$\pi_{2i} = \gamma_{00} + \gamma_{01}(\text{RECTOTAV}) + \zeta_{0i}$$

$$\pi_{3i} = \gamma_{00} + \gamma_{01}(\text{RECTOTAV}) + \zeta_{0i}$$

$$\pi_{4i} = \gamma_{00} + \gamma_{01}(\text{RECTOTAV}) + \zeta_{0i}$$

Table 4.4: Discontinuous Mixed-Effects Growth Models Predicting Change in Helping Behavior as a Function of Reciprocity and Perceived Team Member Efficacy. Between group effects of average perceptions of reciprocity (Study 1)

Variable	Coef.	SE
<b>Fixed Effects</b>		
Intercept	1.09	1.56
TIME	-.01	.02
REC	-.13	.06
TME	-.08	.10
<b>Variance SD</b>		
<b>Random Effects</b>		
Intercept	-.68**	.18
RECAV	-.50**	.11
Residual	1.12**	.28
<b>Fit Indices</b>		
-2 Log Likelihood	-1330.89	
AIC	2679.78	

*Note:* N = 120, k = 886. REC = reciprocity ratio, TME = perceived team member efficacy, TRANS = parameter for transition from Session 1 to Session 2, RECAV = average reciprocity ratio across all time periods.

\*  $p < .05$ , \*\*  $p < .01$

Similarly, Hypothesis 4 predicted that, over time, the point at which helping declined for those in negative reciprocity settings would be earlier for individuals perceiving higher levels of efficacy than for individuals perceiving lower levels of efficacy. I examined the Level 2 parameter (group), where an individual was paired with a high or low performing partner (if high, group=1; if low, group=0). I found a significant effect ( $\beta=.86$ ,  $p<.01$ ) while efficacy became a nonsignificant predictor of helping ( $\beta=-.04$ ,  $p=.72$ ). This suggests that working with a high (or low) performing partner is the most significant predictor of helping behavior, going above and beyond both reciprocity and team member efficacy. These results do not support Hypothesis 4 and can be found in Table 4.5. The Level 2 equations can be seen below:

$$\pi_{0i} = \gamma_{00} + \gamma_{01}(\text{Group}) + \zeta_{0i}$$

$$\pi_{1i} = \gamma_{00} + \gamma_{01}(\text{Group}) + \zeta_{0i}$$

$$\pi_{2i} = \gamma_{00} + \gamma_{01}(\text{Group}) + \zeta_{0i}$$

$$\pi_{3i} = \gamma_{00} + \gamma_{01}(\text{Group}) + \zeta_{0i}$$

$$\pi_{4i} = \gamma_{00} + \gamma_{01}(\text{Group}) + \zeta_{0i}$$

Table 4.5: Discontinuous Mixed-Effects Growth Models Predicting Change in Helping Behavior as a Function of Reciprocity and Perceived Team Member Efficacy. Between group effects of average perceptions of TME (Study 1)

Variable	Coef.	SE
<b>Fixed Effects</b>		
Intercept	1.31	1.54
TIME	-.01	.02
REC	-.07	.07
TME	-.11	.01
<b>Random Effects</b>		
	Variance	SD
Intercept	.34	.99
TMEAVG	-.28	.30
Residual	1.33**	.33
<b>Fit Indices</b>		
-2 Log Likelihood	-1337.89	
AIC	2693.79	

*Note:* N = 120, k = 886. REC = reciprocity ratio, TME = perceived team member efficacy, TRANS = parameter for transition from Session 1 to Session 2, TMEAVG = average TME across all time periods.

\*  $p < .05$ , \*\*  $p < .01$

#### **4.b Study 2: Third Party Helping Behaviors**

##### *Hypothesis Testing: Discontinuous Change Modeling*

I used discontinuous change modeling (i.e., multilevel modeling) to test all hypotheses in Study 2. At Level 1, the model included within-level data for perceptions of reciprocity, perceived efficacy, transition parameters for each collection period, time, and helping (n=1345). Level 2 data included group assignment (paired with a high or low performing partner) and perceived efficacy average (i.e., the average efficacy score reported for each individual across all time periods). These variables were examined at the individual level (n=160).

Table 4.6 includes the means, standard deviations, and bivariate correlations of the primary measures. Table 4.7 show the results from the random coefficient modeling used to test hypotheses. The ICC(1) value (.56) was large enough to indicate between level effects and justify the examination of Level 2 variables (Bliese et al., 2006). All reported results are unstandardized.



Table 4.6: Means, Standard Deviations, and Correlations, for Study 2 Level 1 Variables

Variable	Mean	S.D.	1	2	3	4	5
1. Helping	1.80	1.10					
2. Reciprocity	-.26	1.19	.02				
3. Team Member Efficacy	3.24	.61	.05	.59*			
4. Time	5.00	2.58	-.17	-.08	-.06		
5. Transition (Time 2)	1.00	.32	-.17	-.08	-.07	.55	

Control Variables:

Agreeableness	3.78	.49	.01	.12	.02	.01	-.01
Altruism	3.76	.53	-.03	-.11	-.07	.01	.01

*Note:* N = 158.

1) Correlations were calculated between individuals, using each participant's mean scores for the task.

2) \*  $p < .05$

### *Level 1 Analysis*

Discontinuous change effects were modeled following the recommendations of Singer & Willet (2003). To test Study 2 hypotheses, I accounted for the reciprocity ratio, time, and transitions in helping across time periods. This resulted in the following equation:

$$\text{Helping}_{ij} = \pi_{0i} + \pi_{1i}(\text{REC}) + \pi_{2i}(\text{TME}) + \pi_{3i}(\text{TIME}) + \pi_{4i}(\text{TRANS}) + \varepsilon$$

The results of the discontinuous growth model to test these hypotheses are reported in Table 4.7. For within-level variables, both time ( $\beta = -.04, p=.03$ ) and the Time 2 transition parameter ( $\beta = -.40, p=.01$ ) predicted helping. The significant effect for the Time 2 transition parameter suggests that a downward discontinuous shift in helping behaviors occurs after Time 1 (replicating the results from Study 1).

Table 4.7: Discontinuous Mixed-Effects Growth Models Predicting Change in Helping Behavior as a Function of Reciprocity and Perceived Team Member Efficacy. Between group effects of third party helping behavior (Study 2)

Variable	Coef.	SE
<b>Fixed Effects</b>		
Intercept	3.52**	.60
TIME	-.04*	.02
REC	-.01	.05
TME	.11	.14
TRANS	-.40**	.12
<b>Variance SD</b>		
<b>Random Effects</b>		
Intercept	-.05	.29
GROUP	-.50	.26
Residual	.80**	.17
<b>Fit Indices</b>		
-2 Log Likelihood	1378.36	
AIC	2634.47	

*Note:* N = 158, k = 1345. REC = reciprocity ratio, TME = perceived team member efficacy, TRANS = parameter for transition from Session 1 to Session 2, GROUP = experimental group (0 = low performing partner, 1 = high performing partner).

\*  $p < .05$ , \*\*  $p < .01$

*Additional Testing: Level 2 Variable Perceived Efficacy Average*

I conducted additional discontinuous change analyses to test Hypotheses 5 and 6. Hypothesis 5 predicted that third party helping behaviors would be positively related to initial helping behaviors. Similarly, Hypothesis 6 predicted that third party helping behaviors would be positively related to helping behaviors over time. My findings did not support my hypotheses (group parameter,  $\beta = .159$ ,  $p=.487$ ), suggesting that third party helping behaviors were not a significant predictor of helping behaviors at any time point. Below are the Level 2 equations:

$$\pi_{0i} = \gamma_{00} + \gamma_{01}(\text{3}^{\text{rd}} \text{ Party Helping}) + \zeta_{0i}$$

$$\pi_{1i} = \gamma_{00} + \gamma_{01}(\text{3}^{\text{rd}} \text{ Party Helping}) + \zeta_{0i}$$

$$\pi_{2i} = \gamma_{00} + \gamma_{01}(\text{3}^{\text{rd}} \text{ Party Helping}) + \zeta_{0i}$$

$$\pi_{3i} = \gamma_{00} + \gamma_{01}(\text{3}^{\text{rd}} \text{ Party Helping}) + \zeta_{0i}$$

$$\pi_{4i} = \gamma_{00} + \gamma_{01}(\text{3}^{\text{rd}} \text{ Party Helping}) + \zeta_{0i}$$

Next, I examined the Level 2 parameter of perceived efficacy average and found a significant effect ( $\beta=-.54$ ,  $p=.014$ ). This suggests that an individual's overall perception of their partner's ability is a significant predictor of helping behavior between individuals, regardless of third party helping behaviors. The Level 2 equations are as follows:

$$\pi_{0i} = \gamma_{00} + \gamma_{01}(\text{Perceived Efficacy Average}) + \zeta_{0i}$$

$$\pi_{1i} = \gamma_{00} + \gamma_{01}(\text{Perceived Efficacy Average}) + \zeta_{0i}$$

$$\pi_{2i} = \gamma_{00} + \gamma_{01}(\text{Perceived Efficacy Average}) + \zeta_{0i}$$

$$\pi_{3i} = \gamma_{00} + \gamma_{01}(\text{Perceived Efficacy Average}) + \zeta_{0i}$$

$$\pi_{4i} = \gamma_{00} + \gamma_{01}(\text{Perceived Efficacy Average}) + \zeta_{0i}$$

No significant effect was found for the slopes of either Level 2 variable (parameter perceived efficacy average, group assignment) when attempting to predict the transition parameter.

#### **4.c Study 3: Field Study**

##### *Hypothesis Testing: Random Coefficient Modeling*

The purpose of Study 3 was to test if the findings of Studies 1 and 2 were similar when tested using a field sample. Specifically, hypotheses examining the role of reciprocity and team member efficacy on the likelihood of engaging in helping behavior were tested. I used random coefficient modeling to test all hypotheses. At Level 1, the model included within-level data for perceptions of reciprocity, perceived efficacy, and helping behaviors for both most and least helpful coworkers as indicated by the subjects (n=310). Level 2 data were examined at the individual level (n=155).

Table 4.8 includes the means, standard deviations, and bivariate correlations of the primary measures. Table 4.9 shows the results from the random coefficient modeling used to test hypotheses.

Table 4.8: Means, Standard Deviations, and Correlations, for Study 3 Variables

Variable	Mean	S.D.	1	2	3	4	5
1. Active Helping	3.98	.60					
2. Passive Helping	3.85	.61	.83				
3. Most Helpful	1.5	.50	-.56	-.47			
4. TME	3.57	.64	.57	.48	-.62		
5. Reciprocity	-.26	.57	.12	.12	-.32	.28	
Control Variables:							
Agreeableness	4.11	.39	.19	.14	.01	.18	-.11
Altruism	4.27	.45	.30	.27	.01	-.01	-.16

Note: N = 155.

- 1) Correlations were calculated between individuals, using each participant's mean scores for the task.
- 2) \*  $p < .05$

Table 4.9: Discontinuous Mixed-Effects Growth Models Predicting Change in Active and Passive Helping Behavior as a Function of Reciprocity, Perceived Team Member Efficacy, and Perception of Helpfulness of Coworkers. (Study 3)

Active Helping		
Variable	Coef.	SE
Fixed Effects		
Intercept	2.91	.35
MOST	-.44**	.06
TME	.34**	.07
REC	-.11	.07

Passive Helping		
Variable	Coef.	SE
Fixed Effects		
Intercept	2.75	.43
MOST	-.36**	.08
TME	.30**	.08
REC	-.07	.06

Note: N = 141, k = 277. MOST=Most helpful coworker, REC = reciprocity ratio, TME = perceived team member efficacy

\*  $p < .05$ , \*\*  $p < .01$

For both most and least preferred coworker, reciprocity was not a significant predictor of either active ( $\beta=-.101$ ,  $t=-1.587$ ,  $p=.11$ ) or passive helping behaviors ( $\beta=-.062$ ,  $t=-1.11$ ,  $p=.27$ ). These results mirror those found in Studies 1 and 2, where reciprocity at a single time period did not predict helping behaviors. However, the model shows that perceptions of team member efficacy is a significant predictor of both active ( $\beta=.363$ ,  $t=4.52$ ,  $p<.01$ ) and passive helping behaviors ( $\beta=.316$ ,  $t=3.53$ ,  $p<.01$ ). These results mirror those found in the first two studies. Finally, the data suggest that subjects were more likely to help their most helpful coworker (passive helping,  $\beta=.296$ ,  $t=4.32$ ,  $p<.01$ ; active helping,  $\beta=.371$ ,  $t=7.08$ ,  $p<.01$ ). These results supported the hypotheses that TME would be positively related to helping behaviors.



## CHAPTER 5

### DISCUSSION

#### **5.a Studies 1 and 2**

The purpose of Study 1 was to test a SET framework in the context of a sustained, negative reciprocity relationship to examine how helping behaviors changed over time. Results indicated that helping changes discontinuously early in the task before stabilizing and that reciprocity was a non-significant predictor of helping over time. This suggests that first impressions may be an important part of determining helping behaviors and that, once subjects have made a judgment about their partner, they will commit to a steady pattern of investment behaviors regardless of perceptions of reciprocity.

These data support Hypothesis 1 and contribute to the literature by showing that, under certain circumstances, helping behaviors exhibit discontinuous changes over time. The significant Time 2 transition provides evidence that individuals may be quick to make judgments regarding future returns. Moreover, once these judgments are made behaviors appear to remain stable across groups.

In addition to the significant transition in helping behaviors, the data show no significant relationship between changes in reciprocity and changes helping over time. My results indicate that, under certain circumstances (e.g., an interdependent task), an individual may ignore perceptions of reciprocity in favor of other properties of the exchange relationship. It may be that

external factors such as task interdependence cause individuals to ignore what are otherwise powerful predictors of investment.

Research exploring the role of reciprocity over time generally assumes that a dyad's history is an important antecedent of investment (Cropanzano & Mitchell, 2005). This is reflected in theory (e.g., Blau, 1964; Gouldner, 1960) and practice (Settoon & Mossholder, 2002) where reciprocity is calculated based on past investments and returns. However, it appears that the need to complete an interdependent task may override the role of reciprocity in investment. The current data suggest that perceptions of partner efficacy and the performance of one's partner are most important when deciding timing and magnitude of helping behaviors across sessions. However, a subject's overall perception of reciprocity does predict the severity and timing of the transition parameter in this study.

An additional purpose of Study 1 was to determine the role of perceived efficacy in both initial helping behaviors and changes in helping behaviors over time. I found that Time 1 values of perceived efficacy were not related to initial helping behaviors. However, changes in TME over time was related to changes in helping behaviors throughout the duration of the task. This indicates that the instrumentality of TME may change as a relationship develops and become a more powerful predictor of helping over the course of a relationship.

The findings suggest that partner performance is a stronger predictor of helping than either TME or reciprocity. These findings indicate the possibility that performing well on the experimental protocol was more important to subjects than their personal perceptions of the exchange relationship or their partner. In the experiment, individuals were more likely to help low performing partners, implying that overall performance was important to the subjects. This appears to reflect the workplace feelings of employees who are willing to overlook personal

preferences to work with others in order to complete a task (Avey, Avolio, Crossley, & Luthans, 2009; Bal, Chiaburu, & Jansen, 2010). Many employees must conquer challenges associated with “bad” group members, including working with incompetent or unhelpful coworkers (Mathieu et al., 2008). These experimental results suggest that individuals can and will adapt to these situations by ignoring common norms of social exchange in order to complete the task to which they are assigned. This is counter to SET, which assumes that an individual will terminate a negative reciprocity relationship rather than invest in it.

Showing that both reciprocity and perceptions of efficacy can be overridden by partner performance is an important contribution of this study. This finding provides some empirical evidence that an individual’s feelings towards his or her partner may not always be the most useful predictor of helping behaviors. Rather, it is important to consider factors beyond individual-level perceptions when examining investment decisions such as helping.

The primary goal of Study 2 was to further our understanding of the cross-level relationship among contextual factors (i.e., third party helping) and individual helping behavior in a dyad. In Study 2, my Level 1 model included perceived reciprocity, perceptions of team member efficacy, and transition parameters. The Level 2 model included group assignment (high or low helping from a third party) and an average of perceived team member efficacy over all time periods. The experimental protocol and discontinuous change analysis provided insight into the role of third party helping behaviors across individuals.

Contrary to the stated hypotheses, results did not demonstrate that third party helping behaviors predicted individual helping behaviors over time. However, a downward transition in helping behaviors still occurred at Time 2. This indicates that, similar to Study 1, a significant

shift in helping behaviors occurs early in the task, but the current data does not provide strong enough evidence that any of the collected variables caused this shift.

There are several reasons that may explain why no significant effect was present for third party helping behaviors. Perhaps, the strength of third party helping behaviors was diminished due to the online protocol and would have been more powerful in a face-to-face task (Duffy, Smith, Terhanian, & Bremer, 2005; Min, 2007). It may be that the helping norms are more strongly impacted by one's direct exchange partner than by a third party (Raver et al., 2012). Finally, it is possible that the effect of third party behaviors takes more time to exhibit a significant impact on helping norms (Berkowitz, 1972; Ehrhart & Naumann, 2004; Rosenberg & Trevino, 2003).

Recent studies have described the “sucker aversion” effect (Chen & Bachrach, 2003; Jackson & Harkins, 1985; Schroeder, et al., 2003) which may explain why subjects chose not to engage in helping behaviors. This is the idea that an individual feels inequity when a generally undesirable group member does not engage in helping, which causes the individual to disengage in helping behaviors as well. It is possible the subjects interpreted their simulated partners' negative reciprocity behaviors as defecting from an otherwise established norm of helping. Research suggests that these individuals are often categorized as “free loaders” and can impact the contributions of other group members; this effect has been demonstrated in a wide variety of experiments (e.g., Chen, Au, & Komorita, 1996; Chen, Wasti, & Chiandis, 2007; Kerr, 1989; Komorita, Parks, & Hulbert, 1992).

It is interesting to note, however, that neither reciprocity nor perceived partner efficacy were significant predictors of helping. It is possible that the introduction of third party helping behaviors was enough to establish a social norm of helping while – somewhat paradoxically –

discouraging subjects from investing in their exchange partner due to the partner's lack of helping. This would suggest social norms play a strong role in determining helping behaviors at the individual level and may explain the findings in this study.

### *Theoretical Implications*

The finding that reciprocity and, to some extent, perceived efficacy are not significant predictors of helping suggests that some of the assumptions of SET may not hold when an individual is forced to maintain a negative reciprocity relationship. Many pressures exist within an organization that push employees to maintain relationships with coworkers regardless of relationship quality. As such, many coworkers are likely working within negative reciprocity relationships where the assumptions of SET may not hold. Future research utilizing an SET framework will need to account for this possibility and consider what other factors (e.g., partner performance) may be playing a role in determining subjects' investment patterns.

These results show that relationship quality may not remain a significant predictor of investment over time. In this experiment, subjects were always free to stop participating and terminate their relationship with no consequences (i.e., subjects would still be compensated and entered to win additional compensation). However, only 12 subjects chose to do this. This suggests that individuals do not consider investment choices as rationally as SET assumes. If SET decision models held, then it is likely that a larger percentage of participants would have dropped out of the task because they were receiving no returns from their partner.

Study 2 results indicate that having a helpful third party member is not enough to elicit helping behaviors from an individual. The absence of both individual and group level effects in this study suggest that other variables are driving investment decisions. Subjects in this study exhibited low helping behaviors across groups, which may have impacted the formation of

helping norms across the entirety of the study. This is in line with research suggesting that early group behaviors influence norm development (Graham, 2003; Kameda et al 2003). Regardless, these null-relationships are surprising and lead to questions regarding the influence of helpful versus unhelpful teammates in an exchange.

### *Managerial Implications*

Managers must find methods to reward employees for engaging in helping behaviors regardless of the quality of the exchange relationship between group members. Towards this end, managers should formally and informally encourage helping behaviors and emphasize the importance of helping. That is, managers should prescribe helping expectations and norms within a group, rather than just allowing them to emerge (Ehrhart & Naumann, 2004).

My studies showed that individuals are more likely to help low performers in a negative reciprocity relationship to complete an interdependent task. In other words, an employee will carry a poor performer if necessary. This can create high levels of stress and conflict within a relationship (Mathieu et al., 2008). A manager can help alleviate this stress by demonstrating expectations early and rewarding employees for engaging in helping behaviors.

Study 2 results indicate that the presence of a helpful group member may not be enough to generate helping behaviors in a negative reciprocity relationship. Therefore, managers must closely observe the characteristics and behaviors of group members to ensure that they are willing to invest in each other. Rewarding individuals for being “team players” is a potential route for encouraging individuals to invest in others and may act as an additional incentive to balance out what would otherwise be a negative reciprocity relationship.

### *Limitations*

While an experimental design was chosen in order to isolate variables of interest, ensure repeated measures, and control for partner behaviors, the limitations of the research method should be considered. An experiment makes generalization to “real world” samples difficult. This is particularly true when using students, as is the case for Studies 1 and 2. It should be noted that the primary purpose of the laboratory study was to determine changes in helping behaviors over time in the presence of different variables. With this in mind, concerns about the internal validity of the study took precedence over concerns about the generalizability of the results (Mook, 1983; Sackett & Larson, 1990). Additionally, the experiment was designed to place subjects in a scenario where task interdependence was paramount to success in order to simulate a work task.

Another concern is the short length of time under which the experiment took place. While multiple measurements were taken to map fluctuations in both independent and dependent variables, it is possible that different patterns of investment would occur across larger periods of time. As such, results must be interpreted in light of how quickly subjects were required to make judgments of their partners. This may overemphasize the importance of first impressions in the data. However, the length of this study mirrors the recent emphasis on episodic performance in the management literature (e.g., Beal, Trougakos, Weiss, & Green, 2006; Trougakos, Beal, Green, & Weiss, 2008). Additionally, factors such as political skill or social desirability, which often influence helping behaviors in a relationship, were not simulated.

Finally, the use of students and the lack of a true work environment may be perceived as a limitation of this research, given the goal of understanding sustained helping behaviors in a negative reciprocity relationship. However, the use of students, the simulation of partners, and

the simulation of third party helping behaviors allowed for instantaneous and precise measurement that is often unavailable in field work.

With these limitations in mind, the current results suggest several directions for future research. First, these studies focused primarily on variables impacted by partner behaviors (e.g., reciprocity, efficacy, performance). Future research should more closely examine individual level variables that may be impacting helping over time. Additional experiments or field studies could measure a wide variety of personality, intelligence, and motivation variables that may impact investment. Additionally, future research should explore other outcomes such as retaliation or turnover to determine how individuals react to sustained negative reciprocity relationships.

### **5.b Study 3**

The nature of work will continue to become more interdependent as thresholds for knowledge and skill rise (Settoon & Mossholder, 2002). As such, investigations into sustained helping behaviors will have a larger impact on managerial and scholarly practice. In this dissertation, I add to previous research examining the relationship between reciprocity and helping behaviors. Specifically, I examine how perceptions of reciprocity and partner efficacy impact fluctuations in helping behaviors over time. In Study 3 I found that perceptions of partner efficacy (i.e., TME) was significantly related to helping behaviors towards coworkers. No significant relationship was found between reciprocity and passive or active helping behaviors. These results suggest that how and why people help may be more complex than current theory proposes. Specifically, my results indicate that predictions of future returns may have a high enough impact that an individual will ignore the reciprocity ratio.



The finding that TME is significantly and positively related to helping behaviors, even in the absence of reciprocity, is interesting because it suggests that individuals are more focused on the potential of future returns than past interactions. While no single set of studies can change how we interpret established theoretical paradigms, my dissertation provides a counterintuitive view to our current understanding of social exchanges, which propose that exchanges are predicated on past interactions as a predictor of future returns (Gouldner, 1960).

The importance of past interactions is implicit when studying social exchanges. This is demonstrated in the calculation for reciprocity which is based on past inputs and outputs (Blau, 1964). The current study accounts for these past interactions, but suggests a different story for motivations to invest. After controlling for personality and altruism, I found that TME – not reciprocity – had a main effect for both active and passive helping behaviors. There are multiple interpretations that may explain these findings.

First, it is possible that coworkers are so concerned about future returns that they are willing to ignore negative reciprocity within a relationship in order to achieve immediate work goals. Perceptions of TME acting as a predictor of future returns may override feelings towards positive or negative reciprocity within the coworker relationship. Also, it may be possible that reciprocity is not used as a gauge of relationship health or willingness to invest in a coworker. Subjects are more willing to help those they view as helpful, which suggests that inputs and outputs play a role in investment. However, with no main effect present for reciprocity, it is possible that subjects are calculating the benefits of a relationship in a more complex or different fashion (Flynn, Reagans, Amanatullah, & Ames, 2006).

Second, it may be that employees are more willing to disregard negative reciprocity due to the interdependent nature of work. Perhaps the impact of reciprocity is suppressed by

environmental factors or other relationship factors that encourage collaboration. For example, high levels of organizational commitment are related to engagement in a wide variety of citizenship behaviors such as helping (Ng & Feldman, 2011; Paré & Tremblay, 2007).

Individuals are also likely to invest in relationships they view as beneficial for social status or political reasons (Anderson, John, Keltner, & Kring, 2001; Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013; Fang, Landis, Zhang, Anderson, Shaw, & Kilduff, 2015).

Finally, employees may feel pressured to ignore negative reciprocity by their supervisors or other coworkers. It is often the case that prosocial values and behaviors are promoted in the workplace (Keltner, Kogan, Piff, & Saturn, 2014) to encourage citizenship behaviors and cooperation among employees (Dutton & Heaphy, 2003). This may be embodied by a sense of obligation to work together due to a strong psychological contract with their organization or to satisfy established cultural norms (Blingham, Oldroyd, Thompson, Bednar, & Bunderson, 2013; Cheng et al., 2013).

These explanations are plausible if we consider that external factors such as work contracts, professional pressure, or deadlines require that an individual ignore reciprocal equity in order to complete a task with a coworker. That is, organizational constraints may prevent the termination of a negative reciprocity relationship due to even more unfavorable consequences such as losing one's job or being labeled an outcast at work. This data suggests that, while individuals are more willing to help those they perceive as able and helpful, that reciprocity on its own is not enough to justify investment. Subjects appear to ignore or override their perceptions of reciprocity in favor of variables that are indicative of completing interdependent tasks.

### *Theoretical Implications*

This study, paired with the experimental protocol, highlights the need for clearer theorizing regarding workplace exchange. SET suggests that the primary variables impacting investment behaviors are local, dyadic indicators such as reciprocity. Individuals constantly evaluate the inputs and outputs of their relationships and adjust investment to match. Under this framework, scholars can predict investment behaviors such as helping based on perceptions of reciprocity. Further, SET assumes that an individual will terminate an unfavorable relationship. Currently, theory does not explain motivations for investing in the absence of a favorable reciprocity ratio. While TME explained some variance in investment, other explanations are also needed.

The results of this study suggest that external variables may play a large role in determining investment behaviors at work. That is, dyadic indicators of investment such as reciprocity are being ignored in favor of other variables. While this study did not explicitly account for the impact of subjects' work contracts or relationships with multiple coworkers (e.g., in-group or out-group coworkers, supervisors), it is possible that these types of variables could be explaining variance that is unaccounted for in the current model. If this is the case and norms of reciprocity can be overridden by external variables in an organizational context, it will be important for future research to explain the role of local, dyadic indicators in determining helping behaviors.

### *Managerial Implications*

Study 3 suggests that general perceptions about a coworker's helpfulness and ability may be more important than perceptions of the exchange relationship (as defined by the reciprocity ratio). These results open up a discussion about the importance of reciprocity in a work relationship and the extent to which reciprocity impacts helping.

This study offers evidence that organizations should recognize the importance of employees' perceptions of their coworkers. Although positive reciprocity relationships remain an important part of group cohesion and function (Mathieu et al., 2008), it appears that negative reciprocity relationships can be overcome. Future research in this area could more deeply explore how and why individuals are motivated to put aside exchange differences in order to complete a task together. My findings highlight the importance of employee perceptions of coworkers above and beyond the exchange ratio.

### *Limitations*

Several limitations in this study must be noted. First, the cross-sectional design of the field study prevents causal claims and is vulnerable to common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, the lack of significant relationships suggests that the results were not driven by method variance (George & Bettenhausen, 1990). Further, the results were similar to the experimental data. Regardless, future research should measure these variables from different sources, at multiple time periods, and in different formats (e.g., survey, observation, interview) to avoid common method variance.

Additionally, the sample comes from within a single industry. Nurses were chosen due to the highly interdependent nature of their work, so it is possible that these results would not generalize to other occupations. Due to the conflicting nature of the results in relation to current theory, it would be prudent to replicate and expand the examination of these behaviors across multiple samples in future research.

### **5.c Conclusion**

This dissertation attempted to explore patterns of helping behaviors in sustained negative reciprocity relationships. I examined the influence of established antecedents of helping

including reciprocity and TME in both experimental and field settings. Additionally, I measured the impact of third party helping behaviors on a dyadic exchange.

Study 1 attempted to expand the understanding of SET under conditions of negative reciprocity. The results of this study provide empirical evidence that individuals look beyond the exchange ratio and reciprocal norms when determining investment behaviors. Given the effect of group assignment (i.e., partner performance) on the helping outcomes investigated and the non-significant contribution of reciprocity and perceived efficacy, researchers should continue to examine sustained negative reciprocity relationships to identify the underlying mechanisms governing investment. Additional research in this area seems necessary in order to advance theory and practice regarding employee behaviors in the workplace.

Study 2 explored the impact of third party helping on dyadic exchanges. The null results point to an explanation of group helping behaviors that includes other variables than those accounted for in this Study (e.g., formation of social norms). Overall, the results suggest that one helpful group member is not enough to influence others, at least in this case.

Study 3 verified the experimental findings through a cross-sectional field study. The findings were encouraging due to their consistency across experiments and a field study. Interestingly, perceptions of helpfulness were the strongest predictors of active and passive helping behaviors in this sample. However, longitudinal work is necessary to determine the power of these perceptions over time in a field setting.

This dissertation contributes to the literature in a number of ways. First, it provides empirical evidence that individuals will suppress or ignore reciprocity norms during an interdependent task. This lends credence to the idea that social exchanges may need to be examined in light of other variables or at other levels of analysis. Second, it demonstrates that

sudden, significant transitions in helping behaviors occur within an exchange. Overall, the data suggest that individuals are willing to maintain relationships despite a lack of returns. These findings open several avenues for future research into the behaviors and reactions of individuals working under the stress of negative reciprocity relationships.

## REFERENCES

- Adams, J. S. (1965). Inequity in social exchange. *Advances in Experimental Social Psychology*, 2, 267-299.
- Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, 60, 451-474.
- Ames, D. R., Flynn, F. J., & Weber, E. U. (2004). It's the thought that counts: On perceiving how helpers decide to lend a hand. *Personality and Social Psychology Bulletin*, 30(4), 461-474.
- Arrow, K. (1974). *The limits of organization*. New York: Norton, York.
- Avey, J. B., Avolio, B. J., Crossley, C. D., & Luthans, F. (2009). Psychological ownership: Theoretical extensions, measurement and relation to work outcomes. *Journal of Organizational Behavior*, 30(2), 173-191.
- Bamberger, P. (2009). Employee help-seeking: Antecedents, consequences and new insights for future research. *Research in Personnel and Human Resources Management*, 28(1), 49-98.
- Bandura, A. (1977). *Social learning theory*. Washington, D.C.: McClelland.
- Banks, G. C., Batchelor, J. H., Seers, A., O'Boyle, E. H., Pollack, J. M., & Gower, K. (2014). What does team-member exchange bring to the party? A meta-analytic review of team and leader social exchange. *Journal of Organizational Behavior*, 35(2), 273-295.
- Bauer, D. J., Preacher, K. J., & Gil, K. M. (2006). Conceptualizing and testing random indirect effects and moderated mediation in multilevel models: new procedures and recommendations. *Psychological Methods*, 11(2), 142.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta-analysis. *Personnel psychology*, 44(1), 1-26.
- Barrick, M. R., & Mount, M. K. (1993). Autonomy as a moderator of the relationships between the Big Five personality dimensions and job performance. *Journal of Applied Psychology*, 78, 111-118.
- Batson, C.D. (1997). Self-other merging and the empathy-altruism hypothesis: reply to Neuberg et al. (1997). *Journal of Personality and Social Psychology*, 73, 517-522.

- Baxter, L. A. (1984). Trajectories of relationship disengagement. *Journal of Social and Personal Relationships, 1*(1), 29-48.
- Baxter, L. A. (1988). A dialectical perspective on communication strategies in relationship development. In S. W. Duck, D. F. Hay, S. E. Hobfoll, W. Iches, & B. Montgomery (Eds.). *Handbook of Personal Relationships*. London: Wiley.
- Baxter, L. A. (1990). Dialectic contradictions in relationships development. *Journal of Social and Personal Relationships, 7*, 69-88.
- Baxter, L. A., & Bullis, C. (1986). Turning points in developing romantic relationships. *Human Communication Research, 12*, 469-493.
- Beal, D. J., Trougakos, J. P., Weiss, H. M., & Green, S. G. (2006). Episodic processes in emotional labor: perceptions of affective delivery and regulation strategies. *Journal of Applied Psychology, 91*(5), 1053.
- Becker, J. A. H., Johnson, A. J., Craig, E. A., Gilchrist, E. S., Haigh, M. M., & Lane, L. T. (2009). Friendships are flexible, not fragile: Turning points in geographically-close and long-distance relationships. *Journal of Social and Personal Relationships, 26*, 347-369.
- Belmi, P., & Pfeffer, J. (2015). How “Organization” Can Weaken the Norm of Reciprocity: The Effects of Attributions for Favors and a Calculative Mindset. *Academy of Management Discoveries, 1*(1), 35-55.
- Bergeron, D. M. (2007). The potential paradox of organizational citizenship behavior: Good citizens at what cost?. *Academy of Management Review, 32*(4), 1078-1095.
- Bergeron, D. M., Shipp, A. J., Rosen, B., & Furst, S. A. (2013). Organizational Citizenship Behavior and Career Outcomes: The Cost of Being a Good Citizen. *Journal of Management, 39*(4), 958-984.
- Berkowitz, L. (1972). Social norms, feelings, and other factors affecting helping and altruism. *Advances in Experimental Social Psychology, 6*, 63-108.
- Bigley, G. A., & Steers, R. M. (2003). *Motivation and work behavior, 7<sup>th</sup> ed.* Burr, Ridge, IL: Irwin/Mcgraw-Hill.
- Bingham, J. B., Oldroyd, J. B., Thompson, J. A., Bednar, J. S., & Bunderson, J. S. (2013). Status and the true believer: The impact of psychological contracts on social status attributions of friendship and influence. *Organization Science, 25*(1), 73-92.
- Blau, P. (1964). *Exchange and power in social life*. New York: Wiley
- Bolton, G. E., & Ockenfels, A. (2000). ERC: A theory of equity, reciprocity, and competition. *American Economic Review, 166*-193.



- Borman, W. C., Penner, L. A., Allen, T. D., & Motowidlo, S. J. (2001). Personality predictors of citizenship performance. *International Journal of Selection and Assessment*, 9(1-2), 52-69.
- Bowler, W. M., & Brass, D. J. (2006). Relational correlates of interpersonal citizenship behavior: a social network perspective. *Journal of Applied Psychology*, 91(1), 70-82.
- Bowler, W. M., Halbesleben, J. R., Stodnick, M., Seewers, M. T., & Little, L. M. (2009). The moderating effect of communication network centrality on motive to perform interpersonal citizenship. *Journal of Managerial Issues*, 80-96.
- Brief, A. P., & Motowidlo, S. J. (1986). Prosocial organizational behaviors. *Academy of Management Review*, 11(4), 710-725.
- Brockner, J., Greenberg, J., Brockner, A., Bortz, J., Davy, J., & Carter, C. (1986). Layoffs, equity theory, and work performance: further evidence of the impact of survivor guilt. *Academy of Management Journal*, 29(2), 373-384.
- Buchanan, L., & O'Connell, A. (2006). A brief history of decision making. *Harvard Business Review*, 84(1), 32 – 41.
- Charness, G., & Haruvy, E. (2002). Altruism, equity, and reciprocity in a gift-exchange experiment: an encompassing approach. *Games and Economic Behavior*, 40(2), 203-231.
- Chaudhry, A., & Song, L. J. (2014). Rethinking psychological contracts in the context of organizational change: the moderating role of social comparison and social exchange. *The Journal of Applied Behavioral Science*, 50(3), 337-363.
- Chen, G., & Bliese, P. D. (2002). The role of different levels of leadership in predicting self-and collective efficacy: evidence for discontinuity. *Journal of Applied Psychology*, 87(3), 549.
- Chen, Z., Takeuchi, R., & Shum, C. (2013). A Social information processing perspective of coworker influence on a focal employee. *Organization Science*, 24(6), 1618-1639.
- Cheng, J. T., Tracy, J. L., Foulsham, T., Kingstone, A., & Henrich, J. (2013). Two ways to the top: Evidence that dominance and prestige are distinct yet viable avenues to social rank and influence. *Journal of Personality and Social Psychology*, 104(1), 103.
- Colbert, A. E., Mount, M. K., Harter, J. K., Witt, L. A., & Barrick, M. R. (2004). Interactive effects of personality and perceptions of the work situation on workplace deviance. *Journal of Applied Psychology*, 89(4), 599.
- Comer, D. R. (1995). A model of social loafing in real work groups. *Human Relations*, 48(6), 647-667.
- Corbin, J., & Strauss, A. (1994). Grounded theory methodology. *Handbook of qualitative research*, 273-285.

- Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO personality inventory manual*. Odessa, FL: Psychological Assessment Resources.
- Coyle-Shapiro, J. A. M., & Conway, N. (2004). The employment relationship through the lens of social exchange. In J. A. M. Coyle-Shapiro, L. M. Shore, M. S. Taylor, & L. Tetrick (Eds.), *The employment relationship: Examining psychological and contextual perspectives*. (pp. 5-28). Oxford, UK: Oxford University Press.
- Coyle-Shapiro, J. A. M., Kessler, I., & Purcell, J. (2004). Exploring organizationally directed citizenship behaviour: reciprocity or 'it's my job'?. *Journal of Management Studies*, *41*(1), 85-106.
- Coyle-Shapiro, J. A. M., & Shore, L. M. (2007). The employee-organization relationship: Where do we go from here? *Human Resource Management Review*, *17*, 166-179.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, *31*(6), 874-900.
- Deckop, J. R., Cirka, C. C., & Andersson, L. M. (2003). Doing unto others: The reciprocity of helping behavior in organizations. *Journal of Business Ethics*, *47*(2), 101-113.
- Duchon, D., Green, S. G., & Taber, T. D. (1986). Vertical dyad linkage: A longitudinal assessment of antecedents, measures, and consequences. *Journal of Applied Psychology*, *71*, 56-60.
- Duffy, B., Smith, K., Terhanian, G., & Bremer, J. (2005). Comparing data from online and face-to-face surveys. *International Journal of Market Research*, *47*(6), 615.
- Dutton, J. E., & Heaphy, E. D. (2003). The power of high-quality connections. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship: Foundations of a new discipline* (pp. 263-278). San Francisco: Berrett Koehler.
- Ehrhart, M. G., Bliese, P. D., & Thomas, J. L. (2006). Unit-level OCB and unit effectiveness: Examining the incremental effect of helping behavior. *Human Performance*, *19*(2), 159-173.
- Ehrhart, M. G., & Naumann, S. E. (2004). Organizational citizenship behavior in work groups: a group norms approach. *Journal of Applied Psychology*, *89*(6), 960.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, *14*(4), 532-550.
- Ekeh, P. P. (1974). *Social exchange theory: The two traditions*. London: Heinemann.
- Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology*, 335-362.

- Fang, R., Landis, B., Zhang, Z., Anderson, M. H., Shaw, J. D., & Kilduff, M. (2015). Integrating Personality and Social Networks: A Meta-Analysis of Personality, Network Position, and Work Outcomes in Organizations. *Organization Science*.
- Fehr, E., & Schmidt, K. M. (1999). A theory of fairness, competition, and cooperation. *Quarterly Journal of Economics*, 817-868.
- Felin, T., & Foss, N. J. (2009). Organizational routines and capabilities: Historical drift and a course-correction toward microfoundations. *Scandinavian Journal of Management*, 25(2), 157-167.
- Felps, W., Mitchell, T. R., & Byington, E. (2006). How, when, and why bad apples spoil the barrel: Negative group members and dysfunctional groups. *Research in Organizational Behavior*, 27, 175-222.
- Ferris, G. R., Liden, R. C., Munyon, T. P., Summers, J. K., Basik, K. J., & Buckley, M. R. (2009). Relationships at work: Toward a multidimensional conceptualization of dyadic work relationships. *Journal of Management*, 35, 1379-1403.
- Fiedler, F.E. (1967) *A theory of leadership effectiveness*. New York: Mcgraw-Hill.
- Finkelstein, M. A. (2012). Individualism/collectivism and organizational citizenship behavior: An integrative framework. *Social Behavior and Personality: An International Journal*, 40(10), 1633-1643.
- Flanagan, J. C. (1954). The critical incident technique. *Psychological Bulletin*, 51(4), 327.
- Flynn, F. J. (2003). How much should I give and how often? The effects of generosity and frequency of favor exchange on social status and productivity. *Academy of Management Journal*, 46(5), 539-553.
- Flynn, F.J. (2005). Identity orientations and forms of social exchange in organizations. *Academy of Management Review*, 30, 737-750.
- Flynn, F. J., & Lake, V. K. (2008). If you need help, just ask: underestimating compliance with direct requests for help. *Journal of Personality and Social Psychology*, 95(1), 128.
- Flynn, F. J., Reagans, R. E., Amanatullah, E. T., & Ames, D. R. (2006). Helping one's way to the top: self-monitors achieve status by helping others and knowing who helps whom. *Journal of Personality and Social Psychology*, 91(6), 1123.
- Foss, N. J. (2011). Invited editorial: Why micro-foundations for resource-based theory are needed and what they may look like. *Journal of Management*, 37(5), 1413-1428.
- Fox, S., Spector, P. E., Goh, A., Bruursema, K., & Kessler, S. R. (2012). The deviant citizen: Measuring potential positive relations between counterproductive work behaviour and organizational citizenship behaviour. *Journal of Occupational and Organizational Psychology*, 85(1), 199-220.

- Gallie, D., Zhou, Y., Felstead, A., & Green, F. (2012). Teamwork, skill development and employee welfare. *British Journal of Industrial Relations*, 50(1), 23-46.
- Giacalone, R., & Greenberg, J. (1997). *Antisocial behavior in organizations*. Thousand Oaks, CA: Sage.
- Gouldner, A. W. (1960). The norm of reciprocity. *American Sociological Review*, 25, 165-167
- Grant, A. M., & Patil, S. V. (2012). Challenging the norm of self-interest: Minority influence and transitions to helping norms in work units. *Academy of Management Review*, 37(4), 547-568.
- Graziano, W. G., Habashi, M. M., Sheese, B. E., & Tobin, R. M. (2007). Agreeableness, empathy, and helping: A person  $\times$  situation perspective. *Journal of Personality and Social Psychology*, 93(4), 583-599.
- Griffin, M. A., Neal, A., & Parker, S. K. (2007). A new model of work role performance: Positive behavior in uncertain and interdependent contexts. *Academy of Management Journal*, 50(2), 327-347.
- Griffin, R.W. & O'Leary-Kelly, A. M. (Eds.). (2004). *The dark side of organizational behavior*. San Francisco: Jossey-Bass.
- Griffin, R. W., Stoverink, A. C., & Gardner, R. G. (2012). Negative coworker exchanges. In de Tormes, L.T. & Allen, T.D. (Eds.), *Personal Relationships: The Effect on Employee Attitudes, Behavior, and Well-being*, (pp. 131-157) New York: Routledge.
- Grodal, S., Nelson, A.J., & Siino, R.M. (2015). Help-seeking and help-giving as an organizational routine: continual engagement in innovative work. *Academy of Management Journal*, 58, 136-168.
- Hackman, J. R. (1992). Group influences on individuals in organizations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., Vol. 3, pp. 199-267). Palo Alto, CA: Consulting Psychologists Press.
- Halbesleben, J. R. B. (2012). Positive coworker interactions. In L. Eby and T. Allen (Eds.). *Personal relationships: The effect of supervisory, co-worker, team, customer and nonwork exchanges on employee attitudes, behavior, and well-being* (pp. 107-130). Hoboken, NJ: Wiley.
- Halbesleben, J. R. B., & Bowler, W. M. (2007). Emotional exhaustion and job performance: The mediating role of motivation. *Journal of Applied Psychology*, 91, 93-106.
- Halbesleben, J. R. B., & Wheeler, A. R. (2015). Reciprocal helping behavior as a source of personal resources: A day-level study of coworker pairs. *Journal of Management*, 41, 1628-1650.

- Halbesleben, J. R. B., & Wheeler, A. R. (2011). I owe you one: Coworker reciprocity as a moderator of the day-level exhaustion-performance relationship. *Journal of Organizational Behavior*, 32, 608-626.
- Hobfoll, S.E. (1988). *The ecology of stress*. Washington, D.C.: Hemisphere.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513 – 524.
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: advancing conservation of resources theory. *Applied Psychology*, 50(3), 337-421.
- Hochwarter, W. A., Witt, L. A., Treadway, D. C., & Ferris, G. R. (2006). The interaction of social skill and organizational support on job performance. *Journal of Applied Psychology*, 91(2), 482.
- Jackson, C. L., & LePine, J. A. (2003). Peer responses to a team's weakest link: a test and extension of LePine and Van Dyne's model. *Journal of Applied Psychology*, 88(3), 459-475.
- Jones, G. R., & George, J. M. (1998). The experience and evolution of trust: Implications for cooperation and teamwork. *Academy of Management Review*, 23(3), 531-546.
- Kain, D. L. (2004). Owing significance: The critical incident technique in research. *Foundations for Research: Methods of Inquiry in Education and the Social Sciences*, 69-85.
- Kamdar, D., McAllister, D. J., & Turban, D. B. (2006). " All in a day's work": how follower individual differences and justice perceptions predict OCB role definitions and behavior. *Journal of Applied Psychology*, 91(4), 841-855.
- Kamdar, D., & Van Dyne, L. (2007). The joint effects of personality and workplace social exchange relationships in predicting task performance and citizenship performance. *Journal of Applied Psychology*, 92(5), 1286-1298.
- Katz, D. & Kahn, R.L. (1966). *The social psychology of organizations*. New York: Wiley.
- Keltner, D., Kogan, A., Piff, P. K., & Saturn, S. R. (2014). The sociocultural appraisals, values, and emotions (SAVE) framework of prosociality: Core processes from gene to meme. *Annual Review of Psychology*, 65, 425-460.
- Kim, S., O'Neill, J. W., & Cho, H. M. (2010). When does an employee not help coworkers? The effect of leader-member exchange on employee envy and organizational citizenship behavior. *International Journal of Hospitality Management*, 29(3), 530-537.
- King, E. B., George, J. M., & Hebl, M. R. (2005). Linking personality to helping behaviors at work: An interactional perspective. *Journal of Personality*, 73(3), 585-608.

- Klotz, A. C., & Bolino, M. C. (2013). Citizenship and counterproductive work behavior: A moral licensing view. *Academy of Management Review*, 38(2), 292-306.
- Knight, F. H. (1921). *Risk, uncertainty and profit*. New York: Hart, Schaffner and Marx.
- Kozlowski, S. W., & Bell, B. S. (2003). Work groups and teams in organizations. In W.C. Borman, D.R. Ilgen, & R.J. Klimoski (Eds.) *Handbook of psychology (Vol 12): Industrial and Organizational Psychology* (333-375). New York: Wiley-Blackwell.
- Labianca, G., Brass, D. J., & Gray, B. (1998). Social networks and perceptions of inter-group conflict: The role of negative relationships and third parties. *Academy of Management Journal*, 41, 55–67.
- Ladd, D., & Henry, R. A. (2000). Helping Coworkers and Helping the Organization: The Role of Support Perceptions, Exchange Ideology, and Conscientiousness. *Journal of Applied Social Psychology*, 30(10), 2028-2049.
- Lang, J. W., & Bliese, P. D. (2009). General mental ability and two types of adaptation to unforeseen change: applying discontinuous growth models to the task-change paradigm. *Journal of Applied Psychology*, 94(2), 411.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24(4), 691-710.
- Latane, B., Williams, K., & Harkins, S. (1979). Many hands make light the work: the causes and consequences of social loafing. *Journal of Personality and Social Psychology*, 37(6), 822.
- LePine, J. A., & Van Dyne, L. (2001). Peer responses to low performers: An attributional model of helping in the context of groups. *Academy of Management Review*, 26(1), 67-84.
- Lévi-Strauss, C. (1969). *The elementary structures of kinship* (No. 340). Beacon Press.
- Levine, D. K. (1998). Modeling altruism and spitefulness in experiments. *Review of Economic Dynamics*, 1(3), 593-622.
- Levinson, H. (1965). Reciprocation: the relationship between man and organization. *Administrative Science Quarterly*, 9, 370-390.
- Liao, H., Liu, D., & Loi, R. (2010). Looking at both sides of the social exchange coin: A social cognitive perspective on the joint effects of relationship quality and differentiation on creativity. *Academy of Management Journal*, 53(5), 1090-1109.
- Mathieu, J., Maynard, M. T., Rapp, T., & Gilson, L. (2008). Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *Journal of management*, 34(3), 410-476.

- Matthijs Bal, P., Chiaburu, D. S., & Jansen, P. G. (2010). Psychological contract breach and work performance: is social exchange a buffer or an intensifier?. *Journal of Managerial Psychology*, 25(3), 252-273.
- March, J.G. & Simon, H.A. (1961). *Organizations*. New York: Wiley.
- Min, S. J. (2007). Online vs. face-to-face deliberation: Effects on civic engagement. *Journal of Computer-Mediated Communication*, 12(4), 1369-1387.
- Mook, D. G. (1983). In defense of external invalidity. *American Psychologist*, 38, 379-387.
- Motowidlo, S. J. (2000). Some basic issues related to contextual performance and organizational citizenship behavior in human resource management. *Human Resource Management Review*, 10(1), 115-126.
- Motowidlo, S. J., Borman, W. C., & Schmit, M. J. (1997). A theory of individual differences in task and contextual performance. *Human Performance*, 10(2), 71-83.
- Muthén, L. K., & Muthén, B. O. (2010). *Mplus User's Guide: Statistical Analysis with Latent Variables (6<sup>th</sup> edition)*. Los Angeles, CA: Muthén & Muthén.
- Ng, T. W., & Feldman, D. C. (2011). Affective organizational commitment and citizenship behavior: Linear and non-linear moderating effects of organizational tenure. *Journal of Vocational Behavior*, 79(2), 528-537.
- Ng, K. Y., & Van Dyne, L. (2005). Antecedents and performance consequences of helping behavior in work groups: a multilevel analysis. *Group & Organization Management*, 30(5), 514-540.
- Oarga, C., Stavrova, O., & Fetchenhauer, D. (2015). When and why is helping others good for well-being? The role of belief in reciprocity and conformity to society's expectations. *European Journal of Social Psychology*, 45(2), 242-254.
- Organ, D. W., & Konovsky, M. (1989). Cognitive versus affective determinants of organizational citizenship behavior. *Journal of Applied Psychology*, 74(1), 157.
- Paré, G., & Tremblay, M. (2007). The influence of high-involvement human resources practices, procedural justice, organizational commitment, and citizenship behaviors on information technology professionals' turnover intentions. *Group & Organization Management*, 32(3), 326-357.
- Park, H., & Antonioni, D. (2007). Personality, reciprocity, and strength of conflict resolution strategy. *Journal of Research in Personality*, 41(1), 110-125.
- Penner, L. A., Fritzsche, B. A., Craiger, J. P., & Freifeld, T. R. (1995). Measuring the prosocial personality. In J. Butcher & C. D. Spielberger (Eds.), *Advances in personality assessment* (Vol. 10). Hillsdale, NJ: Lawrence Erlbaum.

- Ployhart, R. E., & Moliterno, T. P. (2011). Emergence of the human capital resource: A multilevel model. *Academy of Management Review*, 36(1), 127-150.
- Ployhart, R. E., Van Iddekinge, C. H., & MacKenzie, W. I. (2011). Acquiring and developing human capital in service contexts: The interconnectedness of human capital resources. *Academy of Management Journal*, 54(2), 353-368.
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *The Leadership Quarterly*, 1(2), 107-142.
- Rabin, M. (1993). Incorporating fairness into game theory and economics. *The American Economic Review*, 1281-1302.
- Ragins, B. R., & Dutton, J. E. (2007). Positive relationships at work: An introduction and invitation. In J. E. Dutton & B. R. Ragins (Eds.), *Exploring positive relationships at work: Building a theoretical and research foundation* (pp. 1-25). Mahwah, NJ: Lawrence Erlbaum.
- Raver, J. L., Ehrhart, M. G., & Chadwick, I. C. (2012). The emergence of team helping norms: Foundations within members' attributes and behavior. *Journal of Organizational Behavior*, 33(5), 616-637.
- Riggs, M. L., Warka, J., Babasa, B., Betancourt, R., & Hooker, S. (1994). Development and validation of self-efficacy and outcome expectancy scales for job-related applications. *Educational and Psychological Measurement*, 54(3), 793-802.
- Robinson, S. L., & Morrison, E. W. (1995). Psychological contracts and OCB: The effect of unfulfilled obligations on civic virtue behavior. *Journal of Organizational Behavior*, 16(3), 289-298.
- Rousseau, D. M., Ho, V. T., & Greenberg, J. (2006). I-deals: Idiosyncratic terms in employment relationships. *Academy of Management Review*, 31(4), 977-994.
- Rosenberg, A. S., & Trevino, L. K. (2003). A proposed model of between-group helping: An identity-based approach. *Journal of Managerial Issues*, 154-174.
- Sackett, P. R., & DeVore, C. J. (2001). Counterproductive behaviors at work. In N. Anderson, D. Ones, H. Sinangil, & C. Viswesvaran (Eds.), *Handbook of Industrial, Work, and Organizational Psychology*, 1, 145-164.
- Sackett, P. R., & Larson, J. R. (1990). Research strategies and tactics in industrial and organizational psychology. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (2nd ed., Vol. 1, pp. 419-489). Palo Alto, CA: Consulting Psychologists Press.
- Senge, P. M., & Suzuki, J. (1994). *The fifth discipline: The art and practice of the learning organization*. New York: Currency Doubleday.



- Settoon, R.P., Bennett, N., & Liden, R.C. (1996). Social exchange in organizations: perceived organizational support, leader-member exchange, and employee reciprocity. *Journal of Applied Psychology, 81*(3), 219 – 227.
- Settoon, R. P., & Mossholder, K. W. (2002). Relationship quality and relationship context as antecedents of person- and task-focused interpersonal citizenship behavior. *Journal of Applied Psychology, 87*, 255–267.
- Simon, H. A. (1947). *Administrative behavior*. New York: Free Press.
- Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York, NY: Oxford University Press.
- Smets, E. M. A., Visser, M. R. M., Oort, F. J., Schaufeli, W. B., & DeHaes, H. J. C. J. M. (2004). Perceived inequity: does it explain burnout in medical specialists? *Journal of Applied Social Psychology, 34*, 1900–1918.
- Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology, 68*(4), 653.
- Spector, P. E., & Fox, S. (2002). An emotion-centered model of voluntary work behavior: Some parallels between counterproductive work behavior and organizational citizenship behavior. *Human Resource Management Review, 12*(2), 269-292.
- Strauss, A., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Sage Publications, Inc.
- Tangirala, S., Green, S. G., & Ramanujam, R. (2008). In the shadow of the boss's boss: Effects of supervisors' upward exchange relationships on employees. *Journal of Applied Psychology*.
- Tepper, B. J., Duffy, M. K., Hoobler, J., & Ensley, M. D. (2004). Moderators of the relationships between coworkers' organizational citizenship behavior and fellow employees' attitudes. *Journal of Applied Psychology, 89*(3), 455-465.
- Trougakos, J. P., Beal, D. J., Green, S. G., & Weiss, H. M. (2008). Making the break count: An episodic examination of recovery activities, emotional experiences, and positive affective displays. *Academy of Management Journal, 51*(1), 131-146.
- van Dierendonck, D., Schaufeli, W. B., & Buunk, B. P. (2001). Burnout and inequity among human service professionals: a longitudinal study. *Journal of Occupational Health Psychology, 6*(1), 43.
- Vardi, Y., & Weitz, E. (2003). *Misbehavior in organizations: Theory, research, and management*. Mahwah, NJ: Earlbaum.

- Venkataramani, V., & Dalal, R.S. (2007). Who helps and harms whom? Relational antecedents of interpersonal helping and harming in organizations. *Journal of Applied Psychology*, 92(4), 952-966.
- Von Neumann, J. & Morgenstern, O. (1944). *Theory of games and economic behavior*. Princeton: Princeton United Publishing.
- Vroom, V. H. (1964). *Work and motivation*. New York: Wiley.
- Wang, C. C., & Wang, C. H. (2008). Helping others in online games: Prosocial behavior in cyberspace. *CyberPsychology & Behavior*, 11(3), 344-346.
- Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review*, 14(3), 361-384.
- Zellars, K. L., & Tepper, B. J. (2003). Beyond social exchange: New directions for organizational citizenship behavior theory and research. *Research in Personnel and Human Resources Management*, 22, 395-424.

## A.1 Study 1-3 Survey Items

### Reciprocity

**Instructions:** Think about the partner with which you work. When responding to the following items, answer in reference to how much effort you and your partner put into the relationship using a scale from 1 (very little) to 5 (very much).

<b><i>Reciprocity - Smets et al., 2004</i></b>	<b>Very Little</b>		<b>Some</b>		<b>Very much</b>
1) How much effort do you feel YOU put into the relationship with your partner?	1	2	3	4	5
2) How much effort do you feel YOUR PARTNER puts into the relationship with you?	1	2	3	4	5
3) How much benefit do you feel YOU receive from the relationship you have with your partner?	1	2	3	4	5
4) How much benefit do you feel YOUR PARTNER receives from his/her relationship with you?	1	2	3	4	5

### Helping

Helping will be measured based on how many lines of additional proofreading a subject takes on for each iteration of the task. After each iteration, subjects will be given the opportunity to add up to five lines of additional proofreading for the next iteration of the task. This creates an objective, repeated measure of helping behavior.

<i>Helping</i>						
You have the option to help your partner by taking on additional lines. This will remove lines from his/her next session and add them to yours. You can take up to five lines per session. Please indicate how many lines you will take below.	0	1	2	3	4	5

Perceptions of Team Member Efficacy

**Instructions:** Think about the partner with which you work. When responding to the following items, answer in reference to your partner's work-related ability.

<i>Perceptions of Team Member Efficacy - Riggs et al., 1994</i>	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1) My partner has above average ability.	1	2	3	4	5
2) My partner is poor compared to other partners doing similar work.	1	2	3	4	5
3) My partner is not able to perform as well as he/she should.	1	2	3	4	5
4) My partner has excellent skills related to this task.	1	2	3	4	5
5) My partner should be punished due to his/her lack of ability.	1	2	3	4	5
6) My partner is not very effective.	1	2	3	4	5
7) My partner cannot do his/her job well.	1	2	3	4	5

APPENDIX B: Study 1-3 Control Variables  
Demographics

*Demographic Questionnaire*

1) What is your gender?

2) What is your current marital status?

3) How old are you?

4) What is your race?

## Altruism

**Instructions:** These items ask you questions about how you deal with other people you work with at work or school. Please answer quickly and honestly. There are no wrong answers.

<i>Altruism - Podsakoff et al., 1990</i>	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1) I help others who have been absent from work or school	1	2	3	4	5
2) I help others who have heavy work loads	1	2	3	4	5
3) I help orient new people even though it is not required	1	2	3	4	5
4) I am willing to help others who have work or school related problems	1	2	3	4	5
5) I am always ready to lend a helping hand to those around me	1	2	3	4	5

### Agreeableness

**Instructions:** These items ask you questions about yourself and how you feel on a daily basis.  
Please answer quickly and honestly. There are no wrong answers.

<i>Agreeableness</i>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Agree Nor Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
1) I have a good word for everyone.	1	2	3	4	5
2) I believe that others have good intentions.	1	2	3	4	5
3) I respect others.	1	2	3	4	5
4) I accept people as they are.	1	2	3	4	5
5) I make people feel at ease.	1	2	3	4	5
6) I have a sharp tongue.	1	2	3	4	5
7) I cut others to pieces.	1	2	3	4	5
8) I suspect hidden motives in others.	1	2	3	4	5
9) I get back at others.	1	2	3	4	5
10) I insult people.	1	2	3	4	5



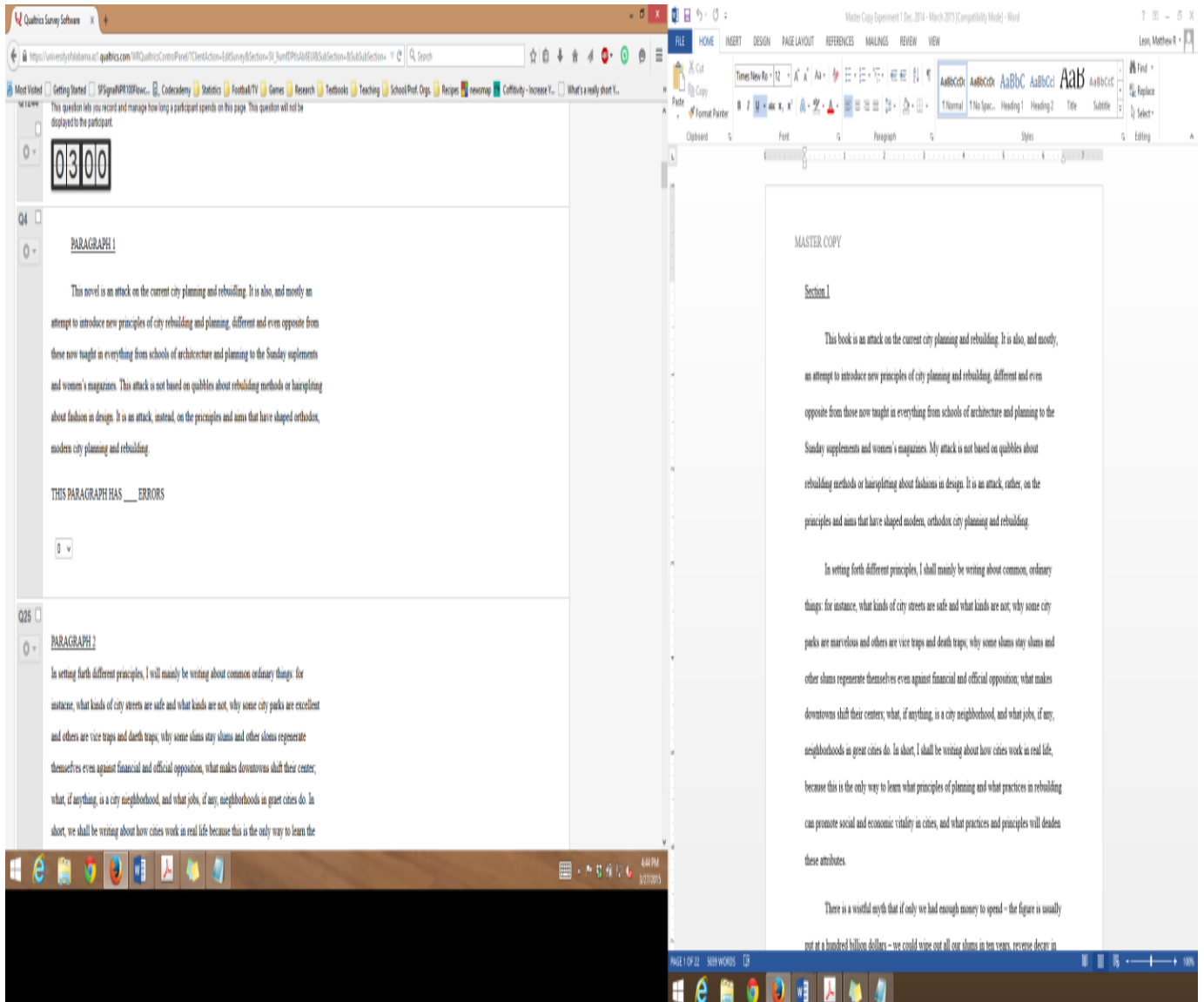
APPENDIX C: Study 3 Helping Items

**Instructions:** This survey asks you questions about how you deal with other people you work with at work. When you answer these questions, please think of your [most/least] preferred coworker. Answer the questions as they pertain to how you help this coworker.

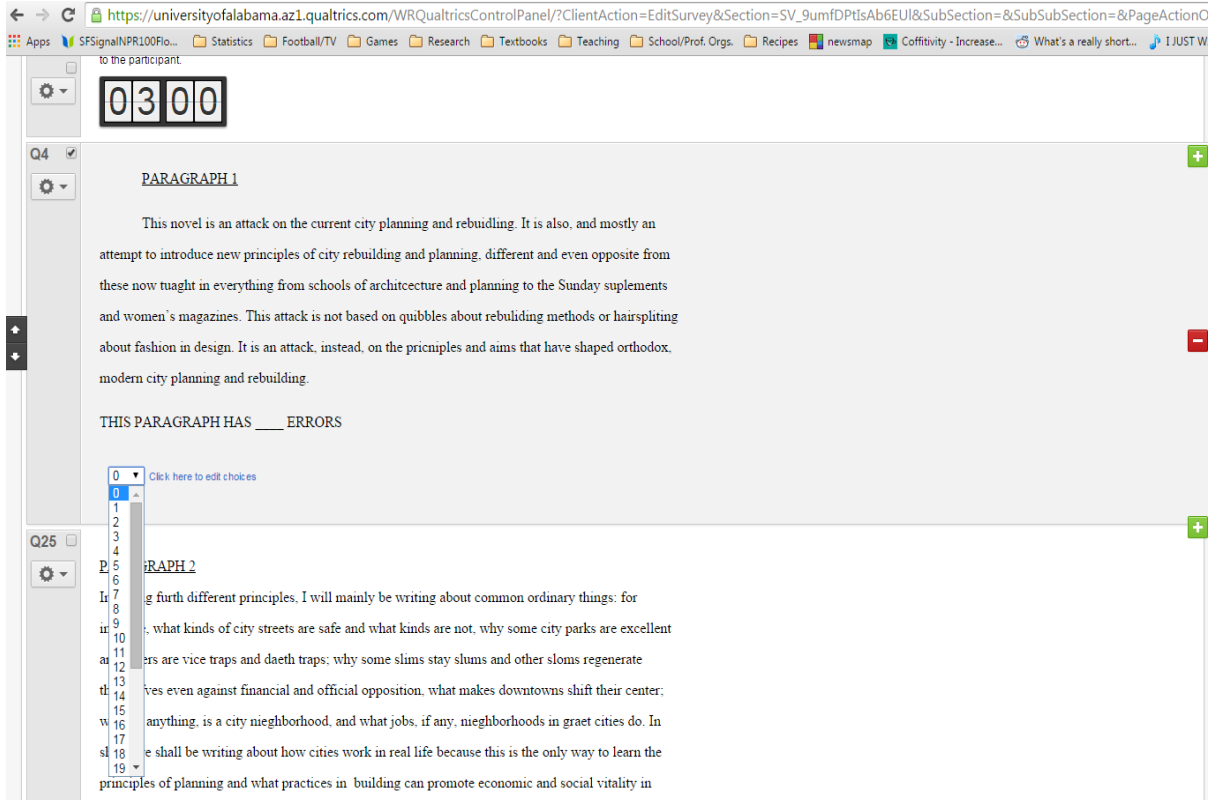
<i>Helping - Settoon &amp; Mossholder, 2002</i>	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1) I listen to my coworker when he/she has to get something off his/her chest	1	2	3	4	5
2) I take time to listen to my coworker's problems and worries	1	2	3	4	5
3) I take a personal interest in my coworker.	1	2	3	4	5
4) I show concern and courtesy towards my coworker, even under the most trying business situations.	1	2	3	4	5
5) I make an extra effort to understand the problems faced by my coworker.	1	2	3	4	5
6) I always go out of my way to make my coworker feel welcome in the work group.	1	2	3	4	5
7) I try to cheer up my coworker when he/she is having a bad day.	1	2	3	4	5
8) I compliment my coworker when he/she succeeds at work.	1	2	3	4	5
9) I take on extra responsibilities in order to help my coworker when things get demanding at work.	1	2	3	4	5
10) I help my coworker with difficult assignments, even when assistance is not directly requested.	1	2	3	4	5

11) I assist my coworker with heavy workloads even though it is not part of my job.	1	2	3	4	5
12) I help my coworker when he/she is running behind in his/her work activities.					
13) I help my coworker with work when he/she has been absent.					
14) I go out of my way to help my coworker with work-related problems.					

## APPENDIX D: Screenshots of Proofreading Protocol Split Screen



# Close up of Error Copy in Qualtrics



APPENDIX E: IRB Certificates

Office for Research  
Institutional Review Board for the  
Protection of Human Subjects



August 7, 2015

Matthew Leon, M.A.  
Department of Management and Marketing  
College of Commerce & Business Administration  
The University of Alabama  
Box 870225

Re: IRB # 14-OR-404 (Revision) "Investment without Return: Effects of Reciprocity on Helping Behaviors over Time"

Dear Mr. Leon:

The University of Alabama Institutional Review Board has reviewed the revision to your previously approved expedited protocol. The board has approved the change in your protocol.

Please remember that your approval period expires one year from the date of your original approval, November 25, 2014, not the date of this revision approval.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants.

Good luck with your research.

Sincerely,

[Redacted signature]

Director of Research Compliance & Research Compliance Officer  
Office of Research Compliance



358 Rose Administration Building  
Box 870127  
Tuscaloosa, Alabama 35487-0127  
(205) 348-8461  
FAX (205) 348-7189  
TOLL FREE (877) 820-3066

Office for Research  
Institutional Review Board for the  
Protection of Human Subjects

THE UNIVERSITY OF  
**ALABAMA**  
R E S E A R C H

August 17, 2015

Matthew Leon  
Dept of Management & Marketing  
College of Commerce & Business Admin.  
Box 870225

Re: IRB # 15-OR-244, "The Impact of External Factors on a Dyadic Helping Relationship in a Nurse Population"

Dear Ms. Leon:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of written documentation of informed consent. Approval has been given under expedited review category 7 as outlined below:

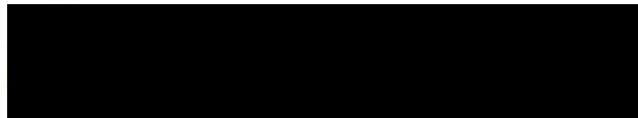
*(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.*

Your application will expire on August 13, 2016. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure form.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,



Director & Research Compliance Officer  
Office for Research Compliance  
The University of Alabama



358 Rose Administration Building  
Box 870127  
Tuscaloosa, Alabama 35487-0127  
(205) 348-8461  
FAX (205) 348-7189  
TOLL FREE (877) 820-3066