

# **An Experimental Study of Psychological Contract Breach: The Effects of Exchange Congruence in the Employer-Employee Relationship**

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**ABSTRACT**

Although the psychological contract has been a popular topic in managerial research for the past twenty years, recent critiques of the research in this area point to several shortcomings. These are believed to result primarily from the overwhelming use of field studies, survey questionnaires, and other correlational procedures in the study of this construct. One particular research question that has generated mixed results involves the effect that one's underlying contract (either transactional or relational) has on individuals' perceptions of contract breach and feelings of violation following an employer's breach. This study sought to gain insight into this question by using an experimental study design to assess the impact that exchange congruence – or the match between the nature of the underlying contract and the nature of the breach – has on employees' perceptions of breach and feelings of violation.

An experimental design was used and data was collected from 421 subjects in six treatment groups and two control groups. The treatment groups examined the effects of withdrawal breach (without resource substitutions) and both congruent and incongruent resource substitutions in transactional and relational work contexts. Also, two control groups in which no psychological breach was induced were examined. The results of the experiment differ for the transactional and relational treatments. No significant differences in perceptions of breach or violation were found with regard to the type of breach induced among the transactional treatments. Among the

relational treatments, subjects that received incongruent resource substitutions perceived significantly higher levels of breach and violation than those that received congruent substitutions. Also, among the relational treatments, levels of perceived breach were significantly higher for the incongruent substitute treatment than for the withdrawal breach treatment. Therefore, the results of this study indicate that breach perceptions and feelings of violation vary for employees depending not only on the type of contract they hold, but the type of breach that they experience. In addition, the study demonstrated that an experimental design is applicable to this literature and that it could advance our understanding of the psychological contract in ways that are not possible with cross-sectional field studies.

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# CHAPTER I: Introduction

## 1.1 Introduction

Central to an understanding of the modern workplace is the idea that employees form different types of exchange relationships with their employers. While some employment relationships consist of only basic transactional exchanges in which hours worked are compensated with pay, others extend beyond this basic transaction and include the exchange of relational resources like personal commitment in return for long-term employment and career advancement (Rousseau, 1990; Millward and Hopkins, 1998). The psychological contract is an important framework for understanding these different types of employment relationships and the impact that they can have on organizational outcomes (Zhao, Wayne, Glibkowski, & Bravo, 2007). Defined as a set of beliefs held by an individual employee about the terms of the exchange agreement held with an employer (Rousseau, 1989; Rousseau, 1995; Morrison and Robinson, 1997), psychological contracts help individuals to form mental models, or schemas about their working relationship. In turn, these schemas help facilitate planning, coordination, and effective performance (Rousseau, 1995; Rousseau, 2001), thereby guiding both employees and employers in terms of the expectations they have of one another.

When the employee and the employer do not agree upon or understand the terms of the contract, however, one or both parties is likely to either intentionally or unintentionally breach – or fail to fulfill – the terms of the exchange agreement (Morrison and Robinson, 1997; Tekleab and Taylor, 2003). When employees perceive psychological contract breach they often respond negatively (Robinson and Morrison, 1995; 2000). For example, a recent meta-analytic examination of the literature finds that psychological contract breach affects a wide range of organizational outcomes including: job satisfaction ( $\rho = -.54$ ,  $SD\rho = .26$ ), organizational

commitment ( $\rho = -.38$ ,  $SD\rho = .13$ ), organizational citizenship behavior ( $\rho = -.14$ ,  $SD\rho = .09$ ), in-role performance ( $\rho = -.24$ ,  $SD\rho = .11$ ), turnover intentions ( $\rho = .42$ ,  $SD\rho = .15$ ), and actual turnover ( $\rho = .06$ ,  $SD\rho = .18$ ) (Zhao, et al., 2007).

Given the adverse effects that it has on so many organizationally relevant outcomes, it is not surprising that psychological contract breach is the most commonly studied phenomenon in this literature (Conway and Briner, 2005; 2009). In the past, researchers have sought to understand both the conditions under which perceptions of psychological contract breach arise (e.g. Robinson and Morrison, 2000) and also the conditions under which the effects of breach perceptions are weaker or stronger (e.g. Grimmer and Oddy, 2007). Because violation – or the intense negative emotional or affective state that may result from experiencing breach (Ortony, Clore, and Collins, 1988; Morrison and Robinson, 1997) – is often believed to mediate the relationship between breach and organizational outcomes, studies have focused particularly on the roles of either: 1) different types of breach (e.g. Zhao, et al., 2007; Bordia, Restubog, and Tang, 2008) or 2) the nature of the underlying psychological contract in the links between perceptions of breach feelings of violation, and outcome variables (e.g. Robinson, Kraatz, & Rousseau, 1994; Dulac, Coyle-Shapiro, Henderson and Wayne, 2008). Results of these studies have found outcomes to differ based on the nature of transactional versus relational breach. Evidence different moderating and mediating effects of transactional versus relational contracts in the relationships between perceptions of breach and violation and outcomes has also been found (e.g. Dulac, et al., 2008). However, taken together, no consistent pattern of results has yet been identified. The findings most strongly dispute the role of relational contracts in the breach to violation relationship. While some researchers have argued that the higher levels of trust that are inherent to relational contracts will cause employees to be more forgiving and understanding

of an employer's breach (e.g. Dulac, et al., 2008), others find that high levels of relational expectations – including long-term commitment and trust – actually cause employees with relational contracts to be more sensitive to breach and more disappointed when it occurs (e.g. Robinson, et al., 1994; Grimmer and Oddy, 2007).

If managers are to lessen the adverse effects that breach has on organizational outcomes (Zhao, et al., 2007), it is important that management researchers better understand how perceptions of breach vary based on types of breach and the type of underlying contract that an employee holds with the employer. If we assume that it is sometimes necessary for an employer to breach contracts – as in the case of furloughs or delayed compensation – for economic or other reasons, to substitute one resource of exchange for another, then this information can help managers to better understand the impact of breach and how to best manage its effects when promises must be broken.

This study seeks to better understand these issues by addressing two particular limitations in the existing psychological contract literature. First, though this well-established and growing body of literature has made many contributions to our understanding of the psychological contract, the persistent use of field studies and survey methods that produce correlational data has resulted in a “methodological rut” (Taylor and Tekleab, 2004; Conway and Briner, 2009). These types of methods limit how psychological contracts are studied and thereby place boundaries on our current knowledge of the psychological contract construct. Conway and Briner (2009) note, for example, that survey methods (used in 90% of empirical studies) do not allow researchers to examine the unfolding exchange process between parties that leads to the creation of psychological contracts. They also note that survey respondents must select, recall, and aggregate events of the past in order to provide the kinds of retrospective information



demanded of them, thus raising issues of validity and reliability. Moreover, these correlational designs do not allow for establishing causal linkages between independent and dependent variables. And finally, because surveys only capture respondents' consciously accessible perceptions and attitudes, they focus more on explicit beliefs, rather than the implicit beliefs that make up the relational components of psychological contracts (Levinson, Price, Munden, and Solley, 1962).

A second limitation that prevents a better understanding of breach effects is the failure of researchers to simultaneously consider both the nature of the breach and the nature of the contract when assessing employees' perceptions of contract breach and feelings of violation. If we consider that psychological contracts are based in social exchange theory (Blau, 1964; Cropanzano and Mitchell, 2005) and that exchange relationships (e.g. psychological contracts) develop as an individual experiences a series of individual exchanges of either a more relational or transactional nature (Cropanzano and Mitchell, 2005), then exchange congruence – or the extent to which the resources involved in the breach (transactional or relational) match the nature of the employee's psychological contract (transactional or relational) – may have important implications for individuals' perceptions of breach and violation. For example, an individual holding a transactional contract that is primarily founded on the exchange of monetary resources, may be more likely to experience breach when pay – a transactional resource – is withdrawn or reneged upon than when extra assistance with a task – a relational resource – is withdrawn or reneged upon.

## **1.2 Study Objectives**

This study addresses these limitations by examining the effects of exchange congruence on perceptions of breach and feelings of violation using an experimental study design. Specifically,

two types of *employer breach* – or the breach occurrence caused by the employer – are examined. The first is *withdrawal breach*, which results from the employer renegeing upon or withdrawing either transactional or relational resources from an existing exchange. The second is *substitution breach* in which transactional or relational resources are substituted for the originally promised resources in an existing exchange. The objectives of this study include: 1) comparing the impact of employer’s withdrawal breach and employer’s substitution breach on perceptions of breach and feelings of violation, 2) examining the impact of exchange congruence on perceptions of breach and feelings of violation, 3) assessing the effects that perceived breach has on both objective measures and self-report measures of employee performance outcomes (e.g. task performance, organizational citizenship behavior, and cyberloafing), 4) assessing the mediating role that violation plays in the relationship between perceived breach and these outcomes, and 5) testing the use of an experimental design in the study of the psychological contract, which to the researcher’s knowledge, had not been used before in this literature.

### **1.3 Study Contributions**

This study makes several types of contributions to our understanding of psychological contracts and the effects of psychological contract breach. Theoretically, the study extends our existing knowledge of how the nature of breach and the nature of an individual’s underlying contract can affect perceptions of breach and feelings of violation. Rather than considering each of these factors separately, as previous research has done, this study examined the effect of exchange congruence – or the match between the nature of the breach and the nature of the contract. The effects of exchange congruence were assessed for both withdrawal breach and substitution breach and compared for individuals holding either predominately transactional or predominately relational psychological contracts. The results show that exchange congruence has

different effects in a predominately transactional context as compared to a predominately relational context with the effects in the relational context being more acute.

In addition, this study compared the effects of employer's breach on employees' perceptions of that breach. The results suggest that employers and employees may not only interpret breach differently, but that the existing measures used to measure breach could be improved upon.

A last methodological contribution was the close examination of the individual and repeated exchanges that lead to the formation of psychological contracts. The study results confirmed that repeated exchanges of a particular nature (either transactional or relational) can lead to the formation of psychological contracts of the same nature and that the nature of the contract. The results also show that the development of a predominately transactional or relational psychological contract affects the development of other employee perceptions, including: affect towards the employer, leader-member-exchange, perceived organizational support, and trust.

All of the theoretical contributions of this study were made possible through the use of an experimental design. This is a new method of examining both the development of psychological contracts and the results of psychological contract breach within this literature. An initial use of this study design was successfully implemented in this study. Given that this design can help future researchers to overcome the current methodological limitations that are widespread in this literature, the researcher considers the use of this design to be a major methodological contribution.

Finally, in addition to these theoretical and methodological contributions, the results of this study make a managerial contribution, giving managers insight into how to better understand and manage the breach of different types of employee psychological contracts in the workplace.

## **1.4 Dissertation Overview**

In Chapter II, a review of the psychological contract literature is provided to lay the theoretical and empirical groundwork upon which the study hypotheses are formed. In Chapter III, all of the study's hypotheses are developed and formally stated. Much of the literature explaining the relationships between contract breach and outcome variables is also discussed as it relates to each outcome variable. At the end of Chapter III, an integrated theoretical model of the study is presented. Chapter IV explains the methods used to test the hypotheses, including a detailed overview of the experimental study design, the measures and the analyses. Chapter V presents the study results. Chapter VI discusses the practical implications, contributions, and limitations of this study and includes recommendations for future studies on this topic. The Appendices contain supplemental information regarding the study design and provide a valuable reference for future psychological contract researchers using experimental designs.

## **CHAPTER II: Overview of Theory and Research and Specification of Constructs**

In this chapter, a review of the psychological contract literature is provided. In the first section, the psychological contract construct is defined and the role of psychological contracts in the working relationship between employer and employee is explained. Next, the evolving process related to psychological contract development is discussed. This includes a brief discussion of the theoretical distinction between the exchange relationship that is represented by the psychological contract and the individual exchange agreements or promises that make up these relationships. Following this, the psychological contract is placed within the broader theoretical context of social exchange theory (SET).

In the second section, transactional and relational psychological contracts are defined and their differences are discussed. In the third section, the concepts of employer breach, perceived breach, and violation are reviewed and their relationships to each other are explained. This section also includes a discussion of the two most common approaches that have been used to study the linkages between these variables as well as their relationship with organizational outcomes. Within this discussion, studies that differentiate transactional breach from relational breach are introduced as are studies that examine the moderation and mediation roles of transactional and relational psychological contracts.

The final section in this chapter provides a summary critique of the empirical studies that have been carried out in psychological contract research. This is followed by a brief statement of the purpose of this study as well as the introduction and specification of a new construct that will be employed in this study: exchange congruence.

This literature review provides the theoretical and empirical foundation upon which this study's hypotheses are constructed in Chapter Three.

## **2.1 The Psychological Contract as a Construct**

Since it was first introduced (Argyris, 1960), a variety of definitions has been used to explain the "psychological contract". Earlier definitions emphasize the employee's general beliefs and expectations about the job (Levinson, 1962; Kotter, 1973; Schein, 1980). Since Denise Rousseau's (1989) seminal paper on psychological contract theory, however, definitions have focused on employees' beliefs about *promises* made between the individual and the organization (Rousseau and Greller, 1994; Rousseau, 1995; Herriot and Pemberton, 1997; Morrison and Robinson, 1997). Following that line of research, psychological contracts are defined here as a set of subjective beliefs held by an employee about the terms of the exchange agreement between the employee and the employing organization. Important to this definition is that these beliefs are promissory and specific to the reciprocal exchange between the employee and his or her employer (Rousseau, 1989; Rousseau, 1995; Morrison and Robinson, 1997).

These promissory beliefs are distinct from more general job expectations, which can include any belief, probable or not, held about a job and the organization (Robinson and Rousseau, 1994). For example, an employee may have general expectations coming into a new job; including first class travel, job security, an annual bonus and coworker relations. However, unless the employee comes to believe that these items were either directly or indirectly promised by an agent of the organization, they would not be considered a part of his or her psychological contract. It is important to note, too, that the contents of the contract develop not only in response to the actual exchanges that take place between the employee and the employer. They include as well the implicit and explicit promises that may not yet be fulfilled, but are believed to

exist in the broader exchange relationship (Conway and Briner, 2005). For example, a new employee may have been explicitly promised a pay raise within one year. Even if this raise has not yet been granted, the promise and the expected future exchange would be part of his psychological contract. An example of an implicit promise, on the other hand, may be based on the fact that one's organization has always paid a yearly bonus. Even if the bonus was never explicitly promised, the fact that a bonus has always been paid, can make it understood as an implicit promise to the extent that it is expected every year (Rousseau, 1995).

## **2.2 The Role of Psychological Contracts in Employment Relationships**

Rousseau (2001) argues that psychological contracts take the form of mental models or schema, which over time, become relatively stable and durable. Schemas – or in this case, psychological contracts – tend to reach a level of completeness when the employee's experiences are consistent with the beliefs the psychological contract holds (Rousseau, 2001). A defining feature of psychological contracts is the belief that the agreement is mutual or that a common understanding exists that binds the parties involved in the employment relationship to a particular course of action (Rousseau, 2001).

When two parties are working interdependently, a mutual understanding of the terms of the working agreement leads to satisfactory performance from both parties' perspectives (Rousseau, 1995). In this sense, the individual employee's schema is accurate when the employee and the employer are aware of, respect, and fulfill the promises that make up the psychological contract. This mutual understanding leads to a relationship that facilitates planning, coordination, and effective performance (Rousseau, 1995; Rousseau, 2001).

On the other hand, when the employee and the employer do not have the same understanding of the terms of the contract, there is a lack of mutuality or agreement in the employment relationship. This is represented in an employee's incorrect or inconsistent schema, which can lead to inefficiencies and false judgments (Crocker, Fiske, and Taylor, 1984). This lack of mutual understanding also makes it more likely that either party intentionally or unintentionally breaches the terms of the agreement (Tekleab and Taylor, 2003). For example, a manager who does not know that an employee perceives a promise of career advancement within the organization may fail to choose that individual for a management development program. This would likely result in the employee strongly perceiving a contract breach. In response to an employer's breach, employees may fail to uphold their promises to the employer. This can yield many adverse consequences for the organization with regard to in-role performance, organizational commitment, OCB, and turnover – to name just a few (Tekleab and Taylor, 2003; Zhao, et al., 2007).

The underlying basis of the psychological contract is the social exchange relationship that guides the fulfillment of obligations between an employee and an employer (Rousseau, 1995; Shore and Barksdale, 1998; Aselage and Eisenberger, 2003; Tekleab, Takeuchi, and Taylor, 2005; Cropanzano and Mitchell, 2005; Dulac, et al., 2008). In the next section, the broader exchange relationship that provides underpinning for the psychological contract is discussed in terms of how it develops.

### **2.3 The Development of Psychological Contracts**

Although the development of psychological contracts has yet to be fully specified and researched, Conway and Briner (2005) characterize the development of psychological contracts as an unfolding process in which contracts are formed, developed, changed, fulfilled or not



fulfilled, and revised based on feedback the individual receives and interprets. In this way, Conway and Briner (2005) note that psychological contracts are formed from a series of exchanges which can take place over longer periods of time. This series of exchanges, in turn, helps determine an ongoing exchange relationship between parties based on reciprocity (Conway and Briner, 2005).

As the psychological contract develops, Conway and Briner (2009) explain that it contains two different types of information. The first concerns the resources which are exchanged – or the types of items each party brings to the deal. The second type of information regards the terms of the agreement – or the precise linkages between items that each party inputs into the relationship and how they are to be exchanged (Conway and Briner, 2009). They go on to argue that the second type of information is of greater importance as it provides a clear basis for understanding reciprocity and prediction in the exchange relationship.

The promised exchanges that form the psychological contract are conveyed either explicitly or implicitly via messages, social cues, patterns of behavior and the like that are interpreted by the individual (Conway and Briner, 2005; Rousseau, 1995). For example, every employment relationship exchange is likely to involve initial formal and explicit contracts or agreements over such issues as job responsibilities, pay, and other benefits. Explicit ways of communicating such elements of the psychological contract include written communications, emails, policies, and overt statements or announcements (Rousseau, 1995; Conway and Briner, 2005).

In addition to these explicit messages, other informal social cues and practices can convey implicit promises inferred by the employee. For example, the ways that agents of the organization respond to particular employee behaviors is likely to be important in the formation of psychological contracts (Conway and Briner, 2005). More objective features of the

organization such as behavioral patterns or observable and repeated practices that manifest themselves in the human resource practices of an organization (e.g., yearly bonuses, promotion requirements, performance criteria, etc.) can also be interpreted as implicit promises made to the employee (Rousseau, 1995; Guest and Conway, 1998).

The psychological contract, then, is an exchange relationship between an employee and his or her employing organization that unfolds after repeated exchanges take place between the same two parties. It is composed of exchange agreements or promises that are conveyed both explicitly and implicitly to the employee. Those exchange agreements include *what* is exchanged as well as the *terms* of the exchange. Finally, the exchanges made take place within an ongoing relationship: one party does something for the other party, and the other party feels obligated to reciprocate to a greater or lesser extent based on either a formal agreement or an implicit understanding of obligation (Conway and Briner, 2005). These basic elements of the psychological contract and how it operates place the psychological contract construct in the larger context of social exchange theory. Both literatures are influential in the development of this study. The relevance of social exchange to the study of psychological contracts is addressed in the next section.

#### **2.4 The Psychological Contract as a Form of Social Exchange**

Social exchange theory (SET) is used in many areas of organizational study to understand and explain diverse exchange relationships. These areas include: social power, (Molm, Peterson, and Takahashi, 1999), networks (Brass, Galaskiewicz, Greve, and Tsai, 2004; Cook, Molm, and Yamagishi, 1993), board independence (Westphal and Zajac, 1997), organizational justice (Konovsky, 2000), leadership (Linden, Sparrowe, and Wayne, 1997), leader member exchange (Gerstner & Day, 1997; Wayne, Shore, and Linden, 1997), perceived organizational support

(Anand, Vidyarthi, Linden, & Rousseau, 2010), exchanges between coworkers (Lau & Cobb, 2009), and finally, as is relevant to this study, between employees and their organizations as addressed in psychological contract theory (Cropanzano & Mitchell, 2005).

Since the early work in SET (Blau, 1964) the social exchange that occurs between two parties has been characterized by two distinct forms. Referred to by many names over the years, current labels for the forms in SET are negotiated and reciprocal exchange (Cropanzano & Mitchell, 2005; Flynn, 2005; Molm, 2003). Negotiated exchange involves explicit, quid pro quo exchanges of resources between parties within a specified and often limited time span. The range of resources exchanged is typically narrow in scope, well defined and tangible (Fao & Fao, 1980) so as to make reviews and enforcement of the exchange easier (Cropanzano and Mitchell, 2005; Lau & Cobb, 2010).

Reciprocal exchange, on the other hand, is typically implicit and vague (Lau and Cobb, 2010; cf., Molm, et al., 1999; cf., Molm, Schaefer, & Collet, 2009). Issues such as the resources to be exchanged are usually left to the parties of the exchange to be decided in terms of what they think are appropriate—as is the time frame for when reciprocity should occur (Sparrow & Cooper, 2003). In addition, the range of resources exchanged tends to be broader than those found in negotiated exchange. While they can include more tangible resources like money or overt recognition, they include as well more particularistic and symbolic resources like affiliation and emotional support (Foa and Foa, 1980). Because there are no formal agreements to enforce the exchange, the exchange relationship is based more on personal relationships, trust, and the reciprocity norm (Gouldner, 1960). Although negotiated and reciprocal exchanges are distinct forms of exchange, they quite often exist within the same exchange relationship (Flynn, 2005).

## 2.5 Relational and Transactional Psychological Contracts

Similar types of exchange are found in psychological contract theory. Referred to as *relational* and *transactional* contracts, they focus specifically on the exchange relationship between employee and employer (e.g. Anderson and Schalk, 1998; Cropanzano & Mitchell, 2005; Herriot, Manning and Kidd, 1997; Millward and Hopkins, 1998; Millward and Brewerton, 1999; Rousseau, 1990). Transactional contracts, like negotiated forms of exchange, define work relationships that generally involve a highly specific exchange of resources, such as pay for performance or hours worked (Robinson, et al., 1994). These relationships are often of narrow scope and limited to a finite period of time as in cases of temporary employment (Robinson et al., 1994). However, they can include a series of recurring exchanges as in monthly, or weekly or even one-time payments for work performed. The terms and conditions of transactional contracts are generally explicit, formal negotiated agreements often expressed in written contracts (Conway and Briner, 2005).

Relational contracts, like reciprocal forms of exchange, generally define work relationships that are broader, more amorphous, and are based on promises and agreements that are more subjectively understood by the exchange partners (e.g., job security in exchange for organizational commitment) (Conway and Briner, 2005). These relationships tend to develop from repeated discretionary exchanges (e.g. from annual bonuses to everyday assistance with a particular tasks). They also tend to be open-ended in terms of the time horizon for exchange (McLean Parks, Kidder and Gallagher, 1998), involve less vigilance of the actions of the other party, and allow for more tolerance of changes in the dynamics of the exchange relationship (Morrison and Robinson, 1997). This is because the exchange of resources is guided more by the reciprocity norm (Blau, 1964) and trust in the other party as opposed to *quid pro quo* expectations (Morrison and Robinson, 1997; Lau and Cobb, 2010).

The resources exchanged in relational contracts tend to be broader in scope and more discretionary than those exchanged in transactional contracts. Employees can contribute commitment, loyalty, discretionary organizational citizenship behaviors, (Rousseau, 1990; Robinson and Morrison, 1995), as well as special favors (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Flynn, 2003) as part of their contributions to the employment relationship. Employers, on the other hand, often provide discretionary organizational support such as investments in training, personal and career development, and job security (Grimmer and Oddy, 2007) and taking into consideration personal and family life (Rousseau, 1990; Rousseau, 1995; Herriot et al., 1997; Conway and Briner, 2005).

Similar to the mix of negotiated and reciprocal exchanges found in social exchange relationships (Flynn, 2005), both transactional and relational contracts can coexist as components of an employee's more general psychological contract (Millward and Herriot, 2000). Initially, the psychological contract of a new employee would likely be dominated by the transactional elements of the formal employment contract agreement. Over time, however, repeated negotiated, or transactional, exchanges can produce personal and social effects such as interpersonal trust, social approval, and collective feelings of attachment or obligation (Lawler and Yoon, 1993). These, in turn, form the interpersonal foundation for the exchange of more discretionary resources and the trust needed for the development of a broader and richer relational contract. The employee might come to see, for example, that the supervisor commits to treat him or her in a way that is seen as fair, that the organization commits to maintain a safe working environment, and that more favorable work assignments will be given for organizational citizenship behavior or the helping of others. These individual implicit relational exchanges combine, too, to form the employee's broader social (Blau, 1964), communal (Mills and Clark,

1982), reciprocal (e.g. Molm, 2003) or relational (e.g. Rousseau, 1990) exchange relationship (Cropanzano and Mitchell, 2005).

In summary, an individual's psychological contract that has not developed beyond a transactional basis would be considered a predominately transactional contract. However, those individuals who have been exposed to repeated relational exchanges—in addition to the transactional exchanges promised—are more likely to develop psychological contracts that are predominately relational in nature. However, even though a relational employment relationship may ensue, the transactional elements of the contract are still expected as promised.

The literature does not claim that one type of contract is preferable to the other; the type of relationship one develops generally depends on the employer's and the individual employee's employment preferences and the type of resources each are willing to exchange. However, some researchers argue that relational psychological contracts are advantageous to the extent that they buffer the effects of contract breach (Tekleab, et al., 2005; Dulac, et al., 2008). Instead of reacting negatively in response to breach, employees with high quality social relationships – such as those held by individuals with relational psychological contracts – generally have higher levels of trust and concern for the organization's welfare and image (Rousseau, 2000). As a result, they may be more willing to give the benefit of the doubt to their employers, to forgive a breach, or to regard it as an exception to the underlying relationship (e.g. Dulac, et al., 2008). We explore this and other opposing findings to this in our review of the literature to follow.

## **2.6 Psychological Contract Breach, Violation and Performance Outcomes**

The vast majority of psychological contract research has focused on perceived contract breach. This attention has been driven by the effects of breach found on so many individual and organizationally relevant outcomes (Conway and Briner, 2009). An overview of that research is

provided below; particularly as it relates to the transactional and relational psychological contracts investigated in this study. This overview provides the foundation upon which additional research builds toward the propositions and hypotheses developed in Chapter 3. Before reviewing this research, however, it is important to specify the theoretical constructs central to the study of breach and its effects.

### ***2.6.1 Contract Breach***

Theoretically, there are two distinct elements of breach, which for the purposes of this study, will be referred to as *employer's breach* and *perceived breach*. Employer's breach is the actual abrogation of the exchange agreement by the employer. Perceived breach, on the other hand, is the cognitive assessment that a salient promise has not been fulfilled (Morrison and Robinson, 1997). Virtually all the research done on breach has focused on this latter component. It is important to note here that almost all measures of breach do not ask about breach directly, but rather about the extent to which employees believe their psychological contract has been fulfilled (Conway and Briner, 2005). In cases in which respondents believe their contract has been largely fulfilled, this is taken to mean that the respondent has not experienced breach (Conway and Briner, 2005). While most survey studies of breach use items that address specific relational or transactional promises made to the employees (e.g. Kickul, Lester, and Finkl, 2002), about fifteen percent (Conway and Briner, 2005) of breach studies use a multi-item global measure of contract breach (e.g. Robinson and Morrison, 2000).

### ***2.6.2 Violation and its Relationship to Breach and Other Outcomes***

Morrison and Robinson (1997) make a clear distinction between perceptions of breach and feelings of violation. While perceived breach entails the cognitive evaluation that one's

organization has failed to fulfill one or more of its promises; violation is the negative emotional or affective state that can result from the experience of contract breach.

Violation involves intense feelings of disappointment and anger when something significant was not received—something that was both expected and desired (Ortony, et al., 1988). That such feelings arise in response to these kinds of events is based on psychological research that shows emotions develop from the cognitive appraisals of such events (e.g. Frijda, 1988; Morrison and Robinson, 1997; Oatley, 1992; Ortony, et al., 1988). Violation usually results in a mental state of readiness for action, which can lead to negative attitudinal and behavioral responses (Morrison and Robinson, 1997). Emerging research indicates that violation plays a strong mediating role between perceptions of breach and organizational outcomes (Zhao, et al., 2007; Dulac, et al., 2008; Bordia, et al., 2008; Suazo, 2009).

Although violation frequently occurs following perceptions of contract breach (Robinson and Rousseau, 1994), it is not an automatic response, and therefore not all cases of breach result in feelings of violation (Turnley and Feldman, 1999; Robinson and Morrison, 2000). Morrison and Robinson (1997), argue that the connection between perceived breach and violation involves the individual's interpretation or sensemaking processes. These processes include an assessment of the magnitude of the negative outcomes of the breach, causal attributions about the breach (e.g., whether the organization *purposely* reneged or not), fairness judgments, and – of particular importance in this study – the nature of the underlying exchange relationship – whether it is primarily transactional or relational.

## **2.7 The Study of the Relationships between Breach, Violation, and Organizational Outcomes**

Within the psychological contract literature, researchers tend to take one of two approaches when it comes to studying the linkages between breach, violation, and organizational outcomes.



The first approach differentiates between transactional and relational breach and assesses the effects that these different types of breach have on the relationships between breach and violation and outcomes. The second approach focuses on psychological contract content – or the underlying nature of one’s psychological contract – and the moderating or mediating impact that the nature of the contract (either transactional or relational) has on these same relationships. It is important to reiterate that the nature of one’s *psychological contract* and the nature of the *breach* that one experiences are two very different and separate constructs. Both of these constructs can be classified as either transactional or relational. However, the nature of one’s contract is based on multiple exchanges that have taken place with one’s organization and its agents and form a basic understanding of the type of agreement that one has with his or her employer (Conway and Briner, 2005). The nature of contract breach, on the other hand, refers to the nature of the exchange that either fails to occur within this existing relationship or which results from an incongruence between what was promised by one party and what was actually received by the other (Morrison and Robinson, 1997). In the next sections, recent literature concerning each approach will be reviewed.

### ***2.7.1 The Impact of Transactional and Relational Contract Breach***

Although different types of perceived breach have been explored (Cassar, 2001; Cassar and Briner, 2005; Pate, 2006), the most common breach-type distinction to be made is the one between transactional and relational breach.

A recent, noteworthy study that addresses the role of different types of breach content (i.e., its relational and transactional components) is a meta-analysis by Zhao, Wayne, Glibkowski, and Bravo (2007). This study draws on a sample of 51 empirical studies and looks at the moderating role of breach content and its impact on various outcome variables including job satisfaction,

organizational commitment, turnover intentions, organizational citizenship behavior (out-of-role performance), and in-role performance. Though Zhao et al. (2007) hypothesize that transactional breach will have a stronger relationship with work outcomes than will relational breach, they find that transactional breach has a statistically larger effect only on organizational commitment, while relational breach has a larger effect on job satisfaction, turnover intentions, and OCB. Both types of breach are found to have a relatively strong relationship with violation ( $\rho = .52$ ,  $SD\rho = .18$ ,  $k = 11$ ,  $N = 4027$ ). (A more detailed review of findings of the meta-analysis will be given in Chapter 3.)

Bordia et al. (2008) examined breach and employee deviance in a large Philippine pharmaceutical firm. Using a facet measure of breach, which presented survey respondents with a list of transactional and relational obligations or commitments generally made by employers (Restubog and Bordia, 2006; Robinson and Morrison, 1995), they examined the extent to which the relationship between perceived breach and workplace deviance was mediated by feelings of violation and revenge seeking. Their results differ based on the type of contract breach employees experienced. Though violation mediated the relationship between perceptions of relational breach and revenge cognitions, violation did not mediate the relationship between perceptions of transactional breach and revenge cognitions. In this study, revenge cognitions represented the motivation and intent to carry out harmful behaviors directed at the target of revenge (Bradfield and Aquino, 1999). These results therefore indicate that relational components of breach have different effects on feelings of violation and revenge cognitions than do transactional components of breach.

In a more recent study, Jensen, Opland, and Ryan (2010) examined the relationship between perceived transactional and relational breach and deviant work behaviors using a sample of 357

employed undergraduate students. The researchers focused on 9 transactional and 17 relational promises made by the employer using a facet measure of perceived breach similar to that used by Bordia et al. (2008). The results show a significant relationship between perceived relational contract breach and abuse (e.g., making threats towards or undermining coworkers), production deviance, and withdrawal. Perceived transactional breach, however, had a significant relationship only with abuse.

Although these studies provide evidence that these two types of breach affect outcomes differently, it is not clear why they do so, if they affect additional outcomes not considered, or in which contexts different breach perceptions develop (Conway and Briner, 2009). Answers to these questions would help managers to better understand the different impacts of breach and also to identify possible reparations for breach, thereby providing more options for organizations forced into breaching psychological contracts (Conway and Briner, 2009). More research needs to be done, therefore, to fully explore the differential effects of transactional and relational breach as well as the mediating role of violation in the perceived breach to outcomes relationship.

### ***2.7.2 The Nature of the Psychological Contract and its Role as a Moderator and Mediator***

Different exchange relationships are governed by different terms and expectations of exchange. For this reason, a perceived breach that may be interpreted as inappropriate in one exchange relationship may be judged acceptable in another (Clark and Waddell, 1985). For example, if an employee holds a predominately relational contract with his employer – characterized with trust and positive affect – a breach of monetary payment may be interpreted

more benignly and temporarily overlooked. In a more transactional exchange relationship, however, such a perceived breach may well lead to strong feelings of violation.

The nature of the underlying psychological contract or exchange relationship, then, serves as a context not only in terms of what may constitute “breach” but also in terms of the sense-making processes (e.g., assessments of outcomes, attributions, and fairness judgments) that tie breach to feelings of violation (Morrison and Robinson, 1997).

Morrison and Robinson (1997) extended this argument to develop a number of propositions. They proposed that perceived breach would lead to stronger feelings of violation in relational exchange relationships than in transactional ones due to the higher-quality nature of relational psychological contracts. Because relational contracts are built on a history of reciprocated exchanges and characterized by greater levels of trust, commitment, and a long-term orientation toward relationship continuance, a perceived relational breach would lead to more intense feelings of violation. Their argument was bolstered by an earlier study in which Robinson, et al. (1994) found that contract violations by an employer were associated with a decrease in both relational and transactional obligations. The effects were significantly greater, however, for relational obligations.

Robinson and Morrison (2000) went on to examine these ideas in a longitudinal study of new employees in which they focused on antecedents to both perceptions of breach and feelings of contract violation. The antecedents included the experience of a formal socialization process, the amount of interaction with organizational agents prior to hire, a history of breach with prior employers, and the number of alternatives at the time of hire. They hypothesized that perceived breach would more likely be reported at time 2 when the promises underlying an employee’s

contract were conveyed implicitly (characteristic of relational contracts) rather than explicitly (characteristic of transactional contracts).

Data from 147 recently graduated MBA students previously employed as managers was gathered. They did not find that the implicitness of promises – or the promises that make up relational contracts – significantly related to perceived contract breach. Their study, however, also looked at the impact of causal attributions and perceptions of fairness on violation. Here they found that both negative attributions involving the belief that the employer was renegeing as well as low levels of perceived fairness had to exist in order for breach to lead to violation (Robinson and Morrison, 2000).

Using their earlier rationale (Morrison and Robinson, 1997), the authors argued that these findings could still be rooted in the underlying nature of the employee's psychological contract (relational versus transactional). Despite these arguments, it needs to be noted that the researchers did not directly measure the nature of the employees' psychological contract. Had they done so, their results may have shed more light on the role underlying contracts play in perceptions of breach and violation and the relationship between them.

Grimmer and Oddy (2007) examined the mediational role of relational versus transactional contract elements on the relationship between perceptions of violation and the dependent variables of trust and organizational commitment. Similar to Morrison and Robinson (1997), Grimmer and Oddy (2007) base their hypotheses on the idea that individuals with a relational contract will be more disappointed by the lack of contract fulfillment (considered as contract breach in this study) than those with a more transactional orientation. Specifically, they predicted that contracts with more relational content would mediate the relationship between contract fulfillment and both trust and commitment. They argued, however, that the same relationship

would not be mediated by transactional contract content (based on their scores for the transactional items measured). This prediction was supported. Unfortunately, the authors failed to differentiate between cognitive perceptions of breach and affective feelings of violation in this study. Measuring only violation, they assumed it to be an automatic extension of breach—not a mediator between it and the outcomes they measured. Thus, while this study is informative about the relation between violation and outcomes, it does not inform us about the nature of the perceived breach-to-violation linkage.

Finally, Dulac, et al. (2008) found counter evidence to the results of some of these earlier studies as well as the earlier theoretical argument made by Morrison and Robinson (1997). Although they chose to examine leader-member exchange (LMX) and perceived organizational support (POS) as indicators of high-quality social relationships rather than measuring relational psychological contract content, they argue that these are proxy measures for the kind of content found in relational contracts (Dulac et al., 2008). They proposed that high-quality social exchange relationships will result in a higher tolerance of perceived breach because individuals within these relationships—based on higher levels of trust and commitment—are more likely to understand breach as a natural and excusable lapse that will be rectified with time (Dulac, et al., 2008). As hypothesized, they found that higher levels of leader-member exchange (LMX) and perceived organizational support (POS) negatively moderated the relationship between perceived psychological contract breach and violation. This counter evidence to previous research suggests researchers should more closely examine the role that the nature of a psychological contract plays in the relationship between breach and violation.

## 2.8 Summary of Literature

In summary, the research examining the relationships between breach, violation, and organizationally relevant outcome variables is mixed, piecemeal, and inconclusive. Studies that approach research in this area by focusing on the nature of the contract breach have thus far found evidence that suggests that relational breach has stronger relationships with more outcome variables than transactional breach does (Zhao et al., 2007; Bordia, et al., 2008, Jensen, et al., 2010). However, the outcomes and mediators vary between studies. Also, only the study by Bordia et al. (2008) used a design from which causal inferences can be made.

In comparison, the studies that have focused on the nature of the underlying psychological contract as a moderator or mediator in the perceived breach-to-violation relationship or the violation-to-outcome relationships have yielded conflicting results. As a result, an ongoing debate continues regarding the effects of relational contracts on breach and violation. While some researchers argue that relational contracts help elevate feelings of violation following employer's breach (Dulac et al., 2008), the majority of studies has found that employees holding predominately relational contracts are more sensitive to employer's breach (e.g. Robinson and Morrison, 2000; Grimmer and Oddy, 2007). The researcher of this study believes that these mixed findings partially stem from the failure to simultaneously examine *both* the nature of individuals' psychological contracts *and* the nature of the breach they experience.

By using an experimental design, this study will attempt to address existing methodological limitations and to contribute to psychological contract theory by examining the effects of a match between the nature of the employee's psychological contract (transactional versus relational) and the nature of the employer's breach (transactional versus relational). The effects of this match will be assessed in relation to both perceived breach and feelings of violation in psychological contracts that are either predominately transactional or relational. For purposes of this study, a

new construct will be introduced: *exchange congruence*, or the congruence between the nature of employer breach and the nature of the underlying psychological contract held by the employee.

## **2.9 Exchange Congruence: The Match between Employer Exchange and the Individual's Psychological Contract**

Recall that psychological contracts are composed of individual exchange promises characterized to be more transactional or relational in both form and substance. These individual exchanges combine in an unfolding sequence of events to form an underlying exchange relationship, which is theoretically distinct from the individual exchanges that make it up (Cropanzano and Mitchell, 2005; Conway and Briner, 2005). Within the psychological contract literature, these broader exchange relationships are also characterized as being predominately transactional or relational.

In their work on social exchange, Cropanzano and Mitchell refer to those forms of transaction that are consistent with the type of relationship in which they occur as *matches*. Therefore, whenever an exchange occurs within an exchange relationship, a *match* exists when the resources exchanged are consistent with that relationship (Cropanzano and Mitchell, 2005). In the case of the psychological contract, a symmetric exchange of similar resources is needed to keep the relationship in balance (Jensen, et al., 2010). In addition, Foa and Foa (1980) suggest that individuals exchange particular types of resources in order to maintain a particular type of relationship. Given these arguments, the match or congruence between the resources exchanged and the nature of an individual's predominant psychological contract (either relational or transactional) is important if employees are to feel as though their contracts are being fulfilled. For the purposes of this study, the researcher uses the term *exchange congruence* to refer to circumstances in which the resources exchanged are congruent with the underlying psychological contract held by an employee. *Exchange incongruence*, on the other hand, refers



to circumstances in which the resources exchanged are not congruent with the underlying psychological contract.

## CHAPTER III: Elaboration of the Theoretical Model and Development of Hypotheses

The focus of this chapter is on the hypotheses and substantive contributions of this study.

Recall from Chapter Two that two particular forms of breach are examined in this study.

The first form occurs when an employer simply reneges on an exchange agreement by providing less of a promised resource or nothing at all (Morrison and Robinson, 1997). This form of breach is referred to as *withdrawal breach* by the researcher of this study. The second form of breach, which can result when an employer substitutes another resource in place of the promised one (Rousseau, 1995) is referred to as *substitution breach* by the researcher of this study.

Though these terms are new to this literature, the concepts are not. Past research regarding breach has primarily focused on the effects and consequences of what is considered *withdrawal breach* – or an employer’s reneging on a promise or withdrawing resources after a period of time in which those were routinely provided to an employee (e.g. Restubog, Bordia, Tang, and Krebs, 2009; Restubog, Bordia and Tang, 2006; Dabos & Rousseau, 2004; Lester, Turnley, Bloodgood, and Bolino, 2002). This study builds on that research by also examining the effects of substitution breach and comparing these results to those of withdrawal breach under the same experimental conditions. These comparisons are detailed in Hypotheses 1 and 2. In addition, the researcher is specifically interested in the impact of resource substitution following withdrawal breach, which is sometimes used by employers to remedy or repair a breach that they have (either intentionally or unintentionally) caused. The role of exchange congruence, or the match between substitution resources and an employee’s underlying psychological contract (e.g. a relational substitution offered to an employee holding a relational contract) are examined in Hypotheses 3 and 4. Finally, the impact that breach has on organizational outcomes is examined

in Hypotheses 5, 6, and 7 and the mediating role of violation in the relationship between breach and organizational outcomes is examined in Hypothesis 8.

### **3.1 Comparing Withdrawal Breach and Substitution Breach**

As mentioned, *withdrawal breach* describes any case in which an employer has reneged upon an existing obligation to an employee and does not offer a substitution of any kind in an effort to repair that breach. Morrison and Robinson (1997) claim that reneging happens when an employer “recognizes that an obligation exists, but knowingly fails to follow through on that obligation” (pg. 233). This type of breach typically occurs because an employer is either unable or unwilling to fulfill promises that were made to employees at earlier points in time (Morrison and Robinson, 1997). Though the reasons for reneging are varied and many, Morrison and Robinson (1997) argue that organizations going through internal or external environmental changes or those experiencing unanticipated decreases in the availability of resources are more likely to renege on contracts, thereby causing withdrawal breach.

In comparison, *substitution breach* occurs as a result of an employer trying to replace a particular resource that was taken away with what they consider a “remediation of comparable value” (Rousseau, 1995, pg. 121). Employers may substitute one resource for another within an established exchange arrangement for any number of reasons. The substituted resource may cost the employer less and be used to reduce overall costs for more profit. Substitutions may also be made because the employer is forced to make them in the face of declining revenues or increased costs (e.g. time off for pay cuts). Attempts of such “breach repair” are often made in hopes of anticipated perceptions of breach and/or mitigating disappointment (Rousseau, 1995). Substitutions may also occur because the employer is simply unaware of the potential for causing

perceptions of breach and violation as a result of substituting different resources for those that were originally promised.

### ***3.1.1 Withdrawal Breach, Substitution Breach, and their Effect on Perceptions of Breach***

As discussed in Chapter 2, perceived breach represents an employee's cognitive assessment that promises made by the employer have not been fulfilled (Morrison and Robinson, 1997). Because both withdrawal breach and substitution breach are likely to lead to a salient and notable discrepancy between what the employer promised and what was actually received, both types of breach are expected to lead to higher levels of perceived breach than employment conditions in which no breach occurs.

However, based on social exchange theory and the norm of reciprocity, which theoretically underpin the psychological contract, substitution breach is expected to result in lower levels of breach perception than withdrawal breach. The norm of reciprocity states that favors or goodwill offered by one party engender an obligation on behalf of the other to reciprocate (Blau, 1964). In the case of withdrawal breach, an employee's performance is never reciprocated in any form, which would result in a failure of the employer to discharge obligations. In the case of substitution breach, on the other hand, even if the resource substituted is different from that which was promised, the substitution allows the employer to attempt a discharge of an existing obligation while helping to maintain the existing contract (Rousseau, 1995). It is therefore hypothesized that:

*H1: Employer's withdrawal breach and employer's substitution breach (e.g. when withdrawn resources are substituted with others) will affect employees' perceptions of breach to the extent that:*

*H1a: Both conditions of withdrawal breach and substitution breach will result in higher levels of perceptions of breach than conditions in which no breach has occurred.*

*H1b: Conditions of substitution breach will result in lower levels of perceptions of breach than conditions of withdrawal breach.*

### **3.1.2 Withdrawal Breach, Substitution Breach, and their Effect on Feelings of Violation**

Feelings of violation often develop once an employee understands that a breach has occurred. Compared to perceptions of breach, which refer to an employee's cognitive understanding of breach, feelings of violation refer to the emotional reaction of anger and betrayal that can follow an instance of contract breach (Robinson and Morrison, 2000).

Both withdrawal breach and substitution breach describe situations in which the employer fails to provide the resources that were originally promised. As a result, both conditions are expected to lead to higher feelings of violation than in conditions in which no breach occurs.

However, substitution breach is expected to result in lower levels of violation than withdrawal breach. Robinson and Morrison (2000) go on to explain that in an effort to understand a breach, employees engage in *sensemaking* – or a search for explanations that enable them to attribute the breach to someone or something. The attributions that they make following breach can then have a strong influence on the intensity of emotion that the person experiences (Ortony et al., 1988). Robinson and Morrison (2000) argue that employees will experience more intense feelings of violation following a perceived breach if they attribute it to knowingly renegeing on a promise (as is more likely in the case of withdrawal breach) than when they can attribute the breach to *incongruence* (Robinson and Morrison, 2000) or a misunderstanding about the nature of the existing contract agreement. Please note that the term *incongruence* is used by Robinson and Morrison (1997) to refer to conflicting ideas between the employer and the

employee regarding the terms of the psychological contract. While incongruence can lead to an incongruent exchange of resources, these are different concepts. As defined earlier, *exchange incongruence* in this study, results from a mismatch between the resource exchanged and the nature of an employee's underlying psychological contract.

In any case, a conscious withdrawal of resources by the employer will tend to cause the employee to blame the organization for the breach, while a resource substitution is more likely to simply be seen as the result of incongruence or a misunderstanding, which in turn will help mitigate blame and weaken the relationship between breach and violation (Morrison and Robinson, 1997; Robinson and Morrison, 2000).

In addition, substitution breach allows for the fulfillment of the norm of reciprocity. Substitutions, even if they are not the same as the resources originally promised, allow the employer to nonetheless discharge an existing obligation to the employee. In doing so, the employee's efforts are recognized and he or she is less likely to feel betrayed than in the condition of withdrawal breach.

It is therefore hypothesized that:

*H2: An employer's withdrawal breach and substitution breach (e.g. when withdrawn resources are substituted with others) will affect an employee's feelings of violation to the extent that:*

*H2a: Both withdrawal breach and substitution breach will result in higher levels of violation than conditions in which no breach has occurred.*

*H2b: Substitution breach will result in lower levels of violation than withdrawal breach.*

### **3.2 Exchange Congruence, Breach, and Violation**

As previously argued, substitution breach is not expected to be as negatively assessed by employees as withdrawal breach. However, an employer can provide an incongruent substitution

of resources with respect to the type of psychological contract an employee holds (e.g. providing a transactional resource substitution for a relational resource withdrawn).

For example, in her discussion of substitution, Rousseau (1995) cites an example of what is considered substitution breach by the researcher of this study: In an effort to streamline palace pay and administrative costs, Queen Elizabeth II decided to give her staff an extra \$45 in their pay check rather than allowing them to continue more relational exchanges including gifts of miniature bottles of alcohol from the royal bar stocks, free bars of her majesty's bath soap, and the gift of a new suit to senior courtiers on the occasion of every other trip they made with her. It may well have been that the financial compensation matched the financial costs of the Queen's more personal items and gifts—perhaps more so. However, when substitutions are used as remedies that are intended to maintain existing contracts, an issue arises regarding the comparable and symbolic value of the substituted resource (Rousseau, 1995). As Rousseau's example illustrates, the difference between substitutions that honor the existing nature of one's contract and those which fail to do so can have important implications for perceived breach and violation.

The next hypotheses in this study, therefore, focus solely on substitution breach and the effects of resource exchange congruence in conjunction with transactional and relational psychological contracts.

### ***3.2.1 Exchange Congruence in the Psychological Contract***

This study brings the nature of a resource substitution and the nature of the underlying psychological contract together in terms of their exchange congruence: the match between the resources actually involved in a substitution breach (i.e., transactional or relational resources)

and the exchange relationship—whether the underlying psychological contact is primarily transactional or relational.

Recall from Chapter Two that psychological contracts are composed of individual transactional and relational exchange agreements. The psychological contract, however, is theoretically different than the simple sum of these exchanges. The predominate nature of those agreements—and how they relate to one another—help to determine the nature of the overall exchange relationship between employee and employer— or the extent to which the psychological contract is predominately transactional or relational. As illustrated in the Queen Elizabeth example above, the match – or what is referred to here as exchange congruence – between the predominate nature of the psychological contract and any particular resource substitution can have an important impact on employees’ perceptions of breach and feelings of violation (Rousseau, 1995; Morrison and Robinson, 1997; Cropanzano and Mitchell, 2005). In turn, changes in these perceptions can affect other organizational outcomes (Zhao et al., 2007).

In social exchange theory, whenever an economic exchange occurs in an economic relationship, exchange congruence exists to the extent that the form of the contingent transaction is consistent with the existing relationship (Cropanzano and Mitchell, 2005). When it comes to psychological contracts, for example, an employee develops and maintains a predominately transactional psychological contract by exchanging transactional resources like hours of work productivity for a certain amount of payment. An employee develops and maintains a predominately relational contract, on the other hand, by exchanging relational resources like favors, OCB, or loyalty for things like higher quality leader relations (cf. Dulac et al., 2008). This study compares the consequences of substituting *congruent* versus *incongruent* resources within either relational or transactional psychological contracts.



### **3.2.2 Employer Substitutions and Perceptions of Breach**

Despite admonitions that the congruence between what is expected and what is actually exchanged needs closer examination (Rousseau, 1995; Morrison and Robinson, 1997), little to no research has done so. Rousseau (1995) and others (e.g. Cropanzano, Weiss, & Elias, 2004) argue that the exchange of resources that are incongruent to an underlying relationship will more likely lead to higher levels of perceived breach and violation than when congruent resources are used as a substitute (e.g. the substitution of transactional for relational resources in an underlying relational contract). Reasons for this include that such a discrepancy is more salient to the employee and can lead to feelings of insecurity about the strength of the contract, the meaning of the substitution, and whether the nature of the existing contract is changing (Rousseau, 1995).

If this line of reasoning holds, then we would expect the exchange congruence of employer substitution breach to affect perceptions of breach such that:

*H3: When an employer breaches a psychological contract and provides a substitution of resources that is congruent with the nature of the underlying contract, employees' perceptions of that breach will differ such that:*

*H3a: Employees with a predominately transactional psychological contract will experience lower perceptions of breach when transactional resources are substituted for transactional resources withdrawn than when relational resources are used as a substitute.*

*H3b: Employees with a predominately relational psychological contract will experience lower perceptions of breach when relational resources are substituted for relational resources withdrawn than when transactional resources are used as a substitute.*

### 3.2.3 *Perceived Substitution Breach and Violation*

As discussed earlier, perceived breach triggers employee sensemaking (Morrison and Robinson, 1997). That sensemaking often involves assessments of magnitude of the discrepancy resulting from the breach and attributions as to its cause (Morrison and Robinson, 1997).

Exchange congruence is also likely to affect the assessments made during the sensemaking process. Because incongruent substitutions create greater discrepancies between the nature of the resources that employees expected and what they received, perceptions of violation are also likely to be higher for incongruent substitutions than congruent substitutions. The incongruent substitutes are likely to be more salient to employees and to cause them to judge the employer more harshly for not fulfilling the existing contract as they expected it to be fulfilled (cf., Cropanzano and Mitchell, 2005). Congruent substitutes, on the other hand, are more likely to be judged as a symbol of mutual understanding between the employee and the employer as to the nature of the existing psychological contract. They are, therefore, also likely to be seen as a more genuine attempt to maintain the underlying exchange relationship upon which the psychological contract rests.

As argued earlier, we expect higher levels of violation to result when individuals are confronted with a discrepancy between what they expected to happen and what actually happened (Weick, 1995). This discrepancy is expected to produce less of a negative affective response when the substituted resource is congruent with—or qualitatively similar in nature to—one's psychological contract. For this reason, we hypothesize that:

*H4: When an employer breaches a psychological contract and provides a substitution of resources that is congruent with the nature of the underlying contract, employees feelings of violation will be affected to the extent that:*

*H4a: Employees with a predominately transactional psychological contract will report lower levels of violation when transactional resources are substituted for transactional resources withdrawn than when relational resources are used as a substitute.*

*H4b: Employees with a predominately relational psychological contract will report lower levels of violation when relational resources are substituted for relational resources withdrawn than when transactional resources are used as a substitute.*

### **3.3 Psychological Contract Breach and Organizational Outcomes**

The relationship between breach and a wide range of outcomes is well established (Conway and Briner, 2009). As a reaction to perceived breach, employees often suffer extreme emotional reactions, develop negative attitudes towards the employer, and withdraw various forms of positive work behaviors (Conway and Briner, 2009). The majority of the studies in this area focus on the effect that breach has on different types of employee attitudes, including negative affect towards the employer (e.g. Conway and Briner, 2002), decreased levels of trust in the organization (e.g. Robinson, 1996; Deery, Iverson and Walsh, 2006; Grimmer and Oddy, 2007; Dulac et al., 2008), reduced organizational commitment (e.g. Lester et al., 2002; Turnley and Feldman, 1999; Grimmer and Oddy, 2007; Dulac et al., 2008; McInnis, Meyer, & Feldman, 2009), reduced job satisfaction (e.g. Tekleab and Taylor, 2003; Orvis, et al., 2008), the development of cynical attitudes towards the employing organization (e.g. Johnson and O’Leary-Kelly, 2003), and withdrawal intentions, including intention to leave the organization (e.g. Robinson and Rousseau, 1994; Turnley and Feldman, 1999; Tekleab and Taylor, 2003; Dulac et al., 2008; Orvis, Dudley & Cortina, 2008). A recent meta-analysis by Zhao et al. (2007), which sampled 51 studies conducted between January 1989 and April 2006, show that psychological contract breach shared the following average observed effect sizes with the following outcomes: violation ( $\rho = .52$ ,  $SD \rho = .18$ ,  $k = 11$ ,  $N = 4027$ ), mistrust ( $\rho = .65$ ,  $SD \rho =$

.14,  $k = 9$ ,  $N = 1536$ ), job satisfaction ( $\rho = -.54$ ,  $SD\rho = .26$ ,  $k = 28$ ,  $N = 14,252$ ), organizational commitment ( $\rho = -.38$ ,  $SD\rho = .13$ ,  $k = 20$ ,  $N = 12,523$ ), organizational citizenship behavior ( $\rho = -.14$ ,  $SD\rho = .09$ ,  $k = 21$ ,  $N = 12,662$ ), and in-role performance ( $\rho = -.24$ ,  $SD\rho = .11$ ,  $k = 16$ ,  $N = 3504$ ). However, the average correlation with actual turnover was only ( $\rho = .06$ ,  $SD\rho = .18$ ,  $k = 5$ ,  $N = 730$ ).

Zhao et al's (2007) meta-analysis and other empirical work indicate that the majority of breach research has focused on attitudinal responses (e.g., job satisfaction), not actual work behavior and performance; and, in general, attitudes are more strongly related to breach than behavior (Conway and Briner, 2009). It is important to note, however, that the majority of breach research utilizes self-report measures of employee outcomes and close to 90% use cross-sectional designs (Conway and Briner, 2005). While this research has certainly contributed to our knowledge of breach, the measures and designs used make it difficult, if not impossible to infer the causal effects between antecedent and outcome variables.

In addition, the majority of breach research does not tie perceived breach to identifiable occasions of employer breach. Generalized perceptions of breach and its consequences can lead to the overgeneralization of breach effects—treating all types of breach the same and can both over and underestimate the effects of any particular kind of breach. For these reasons, Conway and Briner (2009) call for more rigorous research designs to study breach and the use of measures that focus on objective behaviors. Only then can conclusions be drawn about the strength of the relationships between breach and employee outcomes including performance behaviors.

In response, the current study employs an experimental design to examine the impact of psychological contract breach on objective measures of three organizationally relevant outcome

variables: employee task performance, employee organizational citizenship behavior and employee counterproductive work behavior as demonstrated through “cyberloafing”. One goal of this study is to provide useful suggestions to practitioners on the impact of breach in different employment relationship contexts (relational vs. transactional) and the effects breach has on organizational outcomes, which are important to employers hoping to better manage their workforce. This study builds on previous studies that have examined in-role performance and OCB by examining the causal linkages between them with perceived breach as an antecedent. In addition, this study introduces a new dependent variable for examination within the psychological contract literature: cyberloafing, or counterproductive work behavior which results from using the Internet in the workplace for non-work related purposes (Lim, 2002).

### ***3.3.1 The Relationship between Psychological Contract Breach and In-role Performance***

In-role behaviors are those which are formally part of one’s job and are recognized by an organization’s formal reward system (Katz & Kahn, 1978). Because in-role performance is a basic obligation that an employee makes to an employer, employees may choose to withhold the fulfillment of in-role performance if they perceive that the organization did not fulfill its obligations in return (Zhao, et al., 2007). Though the Zhao et al. (2007) meta-analysis found the average effect size between breach and in-role performance to be relatively weak ( $r = -.20$ ,  $SD\rho = .11$ ), Conway and Briner (2009) call attention to a small number of studies which have collected longitudinal data and behavioral measures that draw on organizational records. These studies find breach to have a correlation with job performance between  $-.20$  and  $-.34$  (Bunderson, 2001; Conway and Coyle-Shapiro, 2006; Sturges, Conway, Liefoghe, and Guest, 2005).

In addition, two recent studies have used supervisors' ratings to measure in-role performance and find strong support for the relationship between breach and in-role performance. Restubog, Bordia and Tang (2006) sampled 167 information technology employees and their supervisors in the Philippines, and found a relatively strong correlation between employees perceptions of breach and supervisors' ratings of in-role performance ( $r = -.47, p < .01$ ). Restubog, Bordia, Tang, and Krebs (2009) sampled 142 sales personnel, and their direct supervisors in a large pharmaceutical organization in the Philippines, and found that the relationship between employees' perceptions of breach and supervisors' ratings of in-role performance was even stronger ( $r = -.60, p < .01$ ). Therefore, it is hypothesized that:

*H5: A negative relationship exists between employees' perceptions of psychological contract breach (via withdrawal and substitution) and their in-role task performance.*

### **3.3.2 The Relationship between Psychological Contract Breach and OCB**

Organizational citizenship behaviors (OCB) are beneficial and discretionary behaviors, which are not included in an employee's formal job description (Organ, 1988). Examples include helping new employees to learn their jobs or volunteering to work when a coworker calls in sick unexpectedly. Such behaviors are not explicitly required by the employer and there are generally no formal sanctions for not engaging in them (Zhao, et al., 2007). For this reason, employees can more easily curtail their citizenship behaviors when they perceive a contract breach (Zhao, et al., 2007). Although the meta-analysis by Zhao, et al. (2007) shows a weak effect size for the relationship between contract breach and OCB ( $r = -.11, SD\rho = .09$ ), later studies using more objective measures have found stronger relationships. For example, Chen, Tsui and Zhong (2008) found somewhat stronger results using subordinate ratings of both employees' levels of demonstrated OCBI (citizenship behaviors directed at other individuals)

and OCBO (citizenship behaviors directed at the organization). In a sample of 273 sets of supervisor-subordinate dyads from the employees of a privatized shoe manufacturing company located in Eastern China, the correlation between OCBI and employees' perceptions of inducement breach – the perceived discrepancy between inducements promised by the employer and those actually obtained by the employee – was found to be:  $r = -.17$ , ( $p < .01$ ). The relationship between OCBO and perceptions of inducement breach was found to be:  $r = -.18$ , ( $p < .01$ ).

Zhang and Agarwal (2009) sampled Chinese employees and their supervisors in two state-owned companies in China to examine a similar relationship. In a sample of 242 matched supervisor-subordinate dyads, they found the correlation between contract fulfillment (the opposite of breach) and OCB to be:  $r = .38$  ( $p < .01$ ). These results were based on the employees' response to the measure of perceptions of contract fulfillment and the supervisors' response to the measure of OCB.

Finally, Restubog, et al. (2009) also assessed the relationship between employees' perceptions of breach and supervisors' perceptions of their OCBO and OCBI. Using supervisor-subordinate dyads in a Filipino sample, they found relatively strong negative relationships between perceived breach and OCB. The correlation between supervisors' ratings of employees' OCB-O and OCB- I and employee's self-reports of perceptions of breach were found to be  $r = -.58$  ( $p < .001$ ) and  $r = -.50$  ( $p < .001$ ) respectively.

In summary, despite the relatively weak correlations that were found to exist between breach and in-role performance and OCB in Zhao et al.'s meta-analysis (2007), recent studies using objective outcome measures provide strong empirical evidence for these relationships. This

study builds on these findings by examining the relationship between perceived psychological contract breach and OCB in an experimental setting. It is therefore hypothesized that:

*H6: A negative relationship exists between employees' perceptions of psychological contract breach (via withdrawal and substitution) and their organizational citizenship behaviors.*

### ***3.3.3 The Relationship between Psychological Contract Breach and Counterproductive Work Behaviors***

Employee deviance is voluntary behavior that violates significant organizational norms and thereby threatens the well-being of an organization, its members, or both (Robinson and Bennett, 1995). Robinson and Bennett (1995), distinguish between organizational deviance, which is directed or targeted at the organization and interpersonal deviance, which is directed at members of the organization. Examples of organizational deviance include sabotaging machinery, intentionally working slowly and unnecessarily wasting resources. Examples of interpersonal deviance include gossiping about coworkers, verbal abuse of coworkers and stealing from coworkers. The type of deviance employees practice generally depends on the situation. Though employees may be able to choose among various deviant behaviors, they choose behaviors that are less constrained, more feasible, or least costly, given the context in which they are working (Robinson & Bennett, 1995).

Kaplan argues that employees who engage in deviant behavior either lack the motivation to conform to normative expectations, or they are motivated in some way to violate those expectations (Kaplan, 1975). It is reasonable to assume that perceived breach would violate an employee's normative expectations of what he or she was promised. This, in turn, could well provoke deviant behavior in an attempt to strike back or reestablish a balanced relationship with the employer.



Chiu and Peng (2008) examined the effect of employees' perceptions of psychological contract breach on both employee organizational and interpersonal deviance. The researchers surveyed 233 supervisor – subordinate dyads at eight Taiwanese electronics companies. Subordinates self-rated their perceptions of psychological contract breach while their supervisors rated their levels of deviance. The researchers found that psychological contract breach had a positive significant relationship with both interpersonal ( $r = .26, p < .001$ ) and organizational deviance ( $r = .22, p < .001$ ). A particular strength of this study is the measure of deviance, which is administered to each employee's supervisor. However, this method of measuring deviance may underestimate the occurrence of employees' deviant behaviors, as it focuses only on overt behaviors which could be directly observed by the supervisor. The authors therefore suggest that future research on this relationship measure deviance from multiple sources (e.g. supervisors, co-workers, or employees themselves) (Chiu and Peng, 2008).

Bordia et al. (2008) survey 215 employees at a public-sector organization in the Philippines. At time 1, they surveyed employees about their perceptions of contract breach. At time 2, twenty months later, they obtained data on actual workplace deviant behaviors for those survey participants who gave consent to the researchers to access their personnel records. This resulted in a matched sample of 153 employees. The results of their study showed that employees' perceptions of breach were positively related to both minor deviance offenses, which warranted a sanction of reprimand, verbal admonition, or warning ( $r = .38, p < .001$ ) and major deviance offenses, which warranted either suspension or dismissal from the job ( $r = .41, p < .001$ ).

Jensen, et al. (2010) examined the impact that different types of breach (transactional vs. relational) have on counterproductive work behaviors, which include behaviors of abuse, production deviance, sabotage, theft, and withdrawal. In this study, "abuse" is defined as making

threats or undermining the work of coworkers or others and “production deviance” is the purposeful failure to carry out tasks in the manner in which they are supposed to be performed (cf. Spector, Fox, Penney, Bruursema, Goh, and Kessler, 2006). In a cross-sectional survey of 357 undergraduate students who were all at least employed part-time, the researchers found that the strongest relationships existing between breach and counterproductive work behaviors were those between abuse and transactional breach ( $r = .26, p < .01$ ) and relational breach ( $r = .29, p < .01$ ), and those between production deviance and transactional ( $r = .25, p < .01$ ) and relational breach ( $r = .28, p < .01$ ). Also, the relationships between a composite measure (both transactional and relational elements) of breach and both abuse ( $r = .30, p < .01$ ) and production deviance ( $r = .28, p < .01$ ) are significant.

### ***3.3.3.1 Cyberloafing as a form of counterproductive work behavior***

This dissertation builds on these few studies that demonstrate a relationship between perceptions of psychological contract breach and employee deviance. The focus here is on cyberloafing. Cyberloafing, also known as “cyberslacking” or “Internet deviance”, is defined as “any voluntary act of employees using their companies’ Internet access during office hours to surf nonwork-related Web sites for non-work purposes and to access (including receiving and sending) nonwork-related email” (Lim, Teo, & Loo, 2002, p. 67).

Cyberloafing is becoming more important in today’s workforce where many tasks are performed on a computer interface at an employee’s own discretion and in conjunction with communication technology that relies on the Internet. Cyberloafing not only leads to employee productivity losses, but also raises organizational concerns about privacy and legal liabilities that can result from employees’ Internet activities (Lim and Teo, 2005). The consequences of cyberloafing also pose other serious threats to employers including computer viruses and

bandwidth loss, which in many cases have the potential to negatively affect the productivity of everyone in the organization (Lim, 2002; Nair, 2005).

While a few studies have focused on the antecedents to employee cyberloafing (Jia, 2005; Zoghbi-Manrique de Lara, 2009; Henle & Blanchard, 2008), other studies focus on the relationship between injustice and cyberloafing (Lim et al., 2002; Zoghbi-Manrique de Lara, 2006).

Lim (2002) surveyed 188 working adults with access to the Internet in the workplace and found negative relationships between cyberloafing and employees' perceptions of distributive ( $r = -.38, p < .001$ ), procedural ( $r = -.38, p < .001$ ) and interactive justice ( $r = -.29, p < .001$ ). She also found that neutralization, or the belief that cyberloafing can be legitimized or justified by the injustice an employee had experienced, was a significant mediator in the relationship between injustice and cyberloafing (Lim, 2002).

Similar to the findings in the justice literature, it is reasonable to expect employees' perceptions of psychological contract breach to also lead to feelings of injustice and neutralization tactics or other justifications that consciously support deviance through cyberloafing. For example, when employees perceive an imbalance in the employment relationship to the extent that they are not receiving inducements that they were either implicitly or explicitly promised, it is logical that they would become disgruntled following such breach and attempt to "rebalance" the employment relationship by lowering their organizational contributions through cyberloafing. It is therefore hypothesized:

*H7: A positive relationship exists between employees' perceptions of psychological contract breach (via withdrawal and substitution) and their frequency of cyberloafing.*

### 3.4 Violation as a Mediator Between Breach and Outcomes

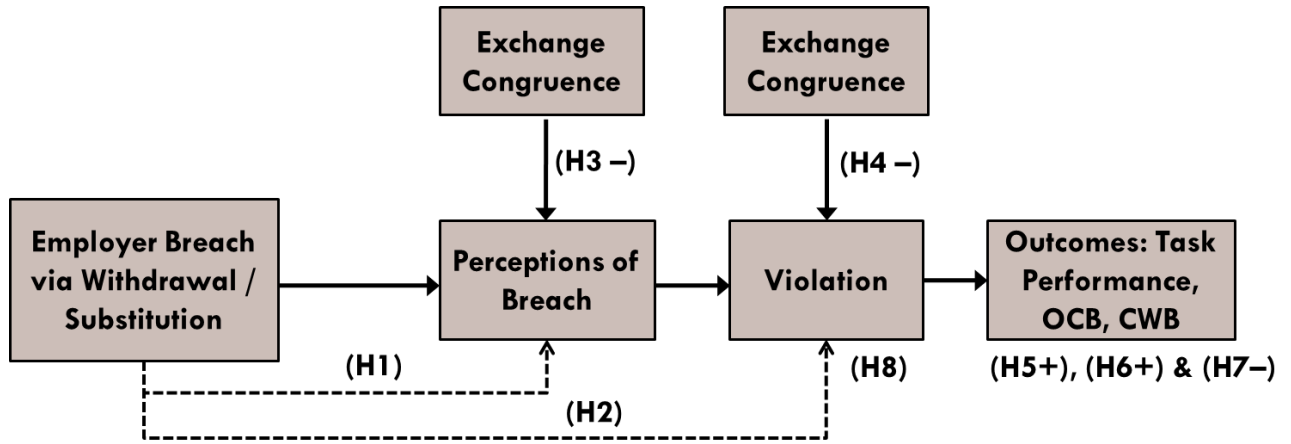
Many studies have explored the different mechanisms believed to function between employees' perceptions of breach and negative organizational outcomes. As a result, numerous explanations are suggested in the psychological contract literature, including discrepancy approaches (Zhao, et al., 2007), trust explanations (Robinson and Rousseau, 1994), rebalancing obligations and inequity (Turnley and Feldman, 2003), and retaliation (Zhao et al., 2007). However, no consistent evidence has been found for any one of these different explanations (Conway and Briner, 2009). Tests of the mechanisms operating between breach and outcomes are still rare in the breach literature and those that have been carried out tend to focus on affective and rebalancing mechanisms (Conway and Briner, 2009).

Tests for mediation variables are more common, but tend to lack robustness as many of them are carried out using cross-sectional data (Conway and Briner, 2009). For example, violation, or the negative affective state that can arise from perceptions of psychological contract breach (Morrison and Robinson, 1997), is a mediation mechanism between perceived breach and organizational outcomes for which multiple studies provide empirical evidence (Dulac, et al., 2008; Bordia, et al., 2008; Suazo, 2009). In addition, the meta-analysis carried out by Zhao et al. (2007) found violation to have a strong relationship with breach in comparison to the other outcome variables examined in the study ( $r = .43$ ,  $SD\rho = .18$ ), based on 11 studies. In line with the strength of the relationship between breach and violation, and other evidence of the possible mediating characteristics of violation in the relationship between breach and various outcome variables, the following is hypothesized:

*H8: Employees' feelings of violation will mediate the relationships between perceived breach (via withdrawal and substitution) and the outcomes of in-role performance, OCB and cyberloafing.*

An overview of theoretical constructs and relationships in this study is provided in Figure 3.1 as are the hypotheses used to test those relationships.

**FIGURE 3.1**  
**Theoretical Model**



## CHAPTER IV: Methods

### 4.1 Study Design and Overview

This study examined the impact that different forms of contract breach have on individuals' perceptions of breach and violation as well as various work outcomes. Specifically, the study compared the impact of withdrawal breach (breach without substitution), different forms of resource substitutions in attempts to repair breach (substitution breach), and the absence of breach (control condition) on individuals' perceptions of contract breach, feelings of violation, task performance, organizational citizenship behaviors and cyberloafing – a form of counterproductive work behavior.

The study consisted of six experimental treatments in which: 1) either a transactional or a relational exchange relationship was manipulated before 2) one of three forms of breach (withdrawal, congruent substitute or incongruent substitute) were induced. In addition, there were two control treatments (with either a transactional or a relational exchange relationship) in which neither withdrawal breach nor substitution breach were induced.

All outcomes, measures and other procedures are the same for each treatment. The methods and procedures, which were used to induce the exchange relationships for the psychological contracts build on experimental research by Molm, which have been shown to successfully induce both negotiated (cf. transactional) and reciprocal (cf. relational) exchange relationships in her subjects (Molm, 1997; Molm, et al., 1999; Molm, Collett and, Schaefer, 2007; Molm, Schaefer, and Collett, 2009).

This chapter discusses the study design and the procedures that were adopted following an extensive pilot study that was carried out in order to test various aspects of the originally proposed design and procedures. A detailed description of the pilot study and a list of the

subsequent changes that were made to the originally proposed study can be found in Appendix A.

## **4.2 Sample**

All subjects were recruited from a large section of an undergraduate business course at a large mid-Atlantic university. At the time of recruitment, subjects were offered a small amount of class credit in return for taking part in the study. All subjects were told that they could earn a maximum of two credit points during the study and that the amount of credit they receive is dependent on their task performance. The stipulation of points based on performance was used to help induce the different exchange relationships described below. In actuality, if a subject completed Phase I and Phase II of the study, he or she was awarded two points of credit regardless of task performance. In total, 421 subjects took part in the primary study.

Based on Cohen's (1988) recommendations that statistical power should exceed .50 and that .80 is an adequate level of power, G-power software (Faul, Erdfelder, Buchner, and Lang, 2009) recommends a sample size of between 52 and 82 for each independent t-test comparison (2 independent groups) if statistical power is set to range from .60 to .80, error probability is at the  $p = .05$  level, and a medium effect size is expected ( $r = .30$ ). Due to the large number of treatment groups needed and the limited subject pool available, approximately 45 to 50 subjects were sought for each treatment.

Before recruiting students into the study, the researcher asked permission from course instructors to both recruit students and to offer students a small amount of class credit as an inducement for participating. The study was then announced via an email that was forwarded from the course instructors to the students. The email introduced the study and included a Qualtrics™ survey link which gave students the opportunity to voluntarily register for both



phases of the study. The survey asked students to choose one of several two-hour study session times that best fit their schedules; subjects were assigned to treatment groups in this manner. Students were assured of confidentiality during the recruitment process and throughout the study. If students chose to provide their email addresses in the recruitment survey, they were reminded of the time and place of the study via email one day prior to the study session for which they registered. The recruitment email can be found in Appendix B. Participants remained blind to the true nature of the study until all subjects had taken part in the study. At that point, which was approximately eight weeks after the study began, subjects were debriefed via email. The debriefing email can be found in Appendix B.

### **4.3 Procedures**

#### ***4.3.1 Overview***

This study was carried out in two phases (referred to here as Phase I and Phase II), which required subjects to take part in two back-to-back computer lab sessions lasting approximately one hour each. During Phase I, an exchange relationship that was predominately transactional or relational in nature was established and manipulation checks were taken. During Phase II, which took place directly following Phase I, the breach manipulations were carried out. The procedures used in each phase and the differences between treatments will be discussed in more detail in the sections below. The study phases were offered back-to-back in order to prevent high participation attrition in Phase II of the study, to make the breach manipulation more believable, and to give subjects the opportunity to withdraw completely from Phase II of the study once the breach had been induced.

### ***4.3.2 The Use of Deception in Establishing an Employer-Employee Relationship***

In order to emulate the establishment of an employer-employee exchange relationship as it is represented by the construct of the psychological contract, the subjects were told that they were working for a third party consulting organization known as “Campus Solutions”. This organization was claimed to have been hired by the university to collect information about students’ knowledge of services and facilities and their student experiences. Subjects were told that this information was needed in order to develop strategies to better recruit new students to the university. In addition, the researcher, who was present to coordinate each session, was introduced as a representative of this organization. The role of the researcher in the sessions was to carry out the study manipulations discussed in the next section.

The study was conducted primarily through a website that was designed by the researcher and appears to represent the “Campus Solutions” consulting organization ([www.campussolutions.org](http://www.campussolutions.org)). See Appendix C for screen shots of the website. During both phases of the study, students worked through the website, which provided a list of Qualtrics™ surveys, each of which contained a number of tasks composed of questions that tested students’ knowledge of various university-relevant topics (e.g. campus dining, campus buildings, campus bus routes). These tasks served as a work medium that enabled the researcher to create a psychological contract with the subjects to the extent that subjects’ completion of tasks could be exchanged for class credit. Manipulation checks and other study measures were also incorporated into the study as tasks. The tasks which contained study measures were claimed to serve the purpose of collecting students’ feedback on the sessions and students’ impressions of the Campus Solutions organization and its representative. See Appendix D to see a sample of several tasks administered in the study.

### ***4.3.3 The Role of a Website***

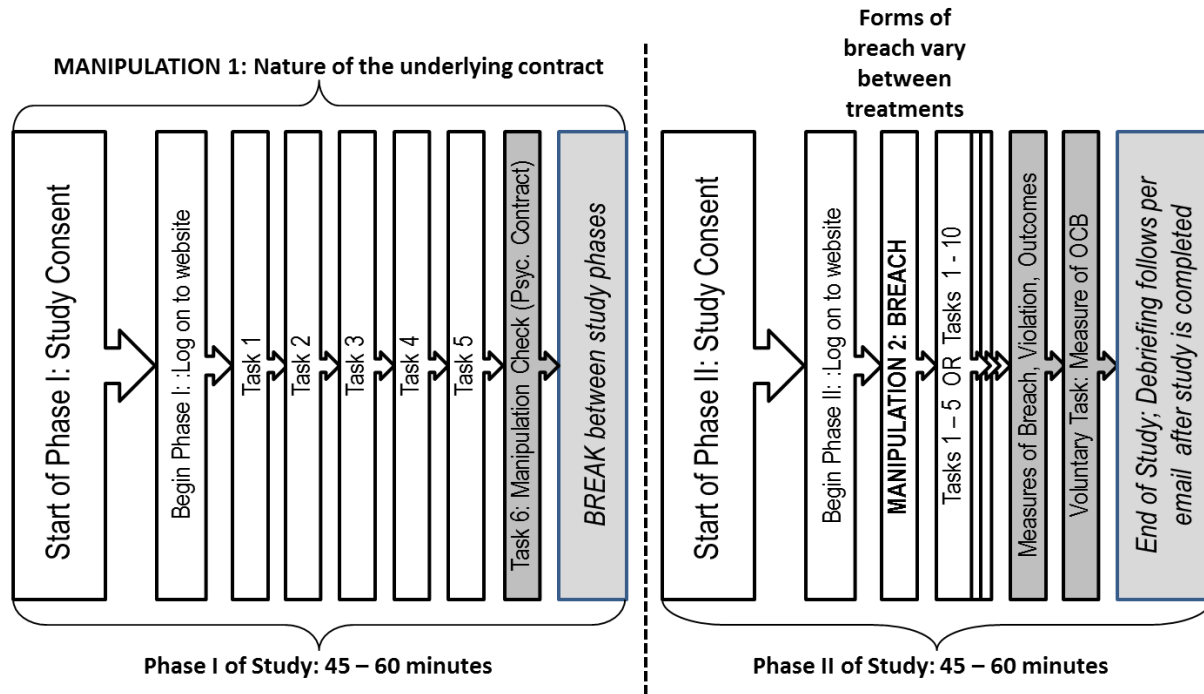
The researcher chose to use a website interface in this study for several reasons. First, a website requires respondents to sit at an online computer interface, which simulates many of today's modern work environments in which work is often completed at each employee's own discretion during a normal work day. Second, this interface also presents opportunities for counterproductive work behaviors such as cyberloafing, which serves as an outcome variable in this study. Finally, a website creates a single backdrop for administering the treatments via a series of Qualtrics™ tasks in a systematic and consistent manner, which helps control for potential confounding variables and demand effects while carrying out the treatments.

### **4.4 Chronological Overview of Procedures and Manipulations**

Figure 4.1 presents an overview of the procedures used in the study. Phases I and II of the experiment took place in a university computer lab that holds approximately 24 monitors. For this reason, each study session did not exceed 24 subjects, with the average number per session being 15 subjects.

**FIGURE 4.1**

**Overview of Study Procedures and Manipulations**



**4.5 Overview of the Two-phase Study Design**

This study involved two experimental phases that were carried out within a two-hour time frame. Phase I of the study, which lasted 45 to 60 minutes, was devoted to inducing either a relational or transactional exchange relationship with subjects. During this phase, subjects all received the same types of tasks and questions within each task, but interaction with the organizational representative varied by transactional or relational treatment. Manipulation checks were administered to confirm the induction of the treatments. Phase II of the study, which also lasted 45 to 60 minutes, was used to induce breach and to administer measures of breach, violation, and all other outcome variables. Regardless of what subjects were made to believe in conjunction with the treatments, the same total number of questions was required for completion

of the study in all treatments – though the number of tasks into which the questions were grouped differed between treatments. This was done to ensure that the overall effort, productivity, and performance requirements of the subjects remained approximately the same across treatments. In addition, all subjects were permitted to leave the second phase of the study once they had completed the tasks required for credit in Phase II.

#### ***4.5.1 Phase I Experimental Procedures***

At the beginning of Phase I, subjects were required to consent to voluntary participation in the study. The information sheet that subjects were required to sign in order to give consent for Phase I can be found in Appendix E. Following consent, subjects were introduced to the “Campus Solutions” organization and to the researcher, who introduced herself as the “Campus Solutions Representative”. In addition, the purpose of the study, task instructions, and the work performance stipulations were also explained. Depending on the treatment, the study instructions varied between transactional and relational treatments. In order to diminish demand effects and other confounds, prewritten scripts detailing the different verbal instructions were used at the start of each treatment. These can be found in Appendix F. Following the verbal instructions, subjects activated the “Campus Solutions” website and worked on a series of web-based surveys, each of which was composed of a number of questions that represented a single work task. A sample listing of tasks and corresponding questions can be found in Appendix D. The manner in which these tasks were set up provided the opportunity for the researcher to induce either a transactional or relational exchange relationship (see below).

During Phase I, all subjects in all treatments performed five separate tasks, each of which took approximately five to ten minutes to complete. A sixth and final “feedback task” served as a manipulation check to assess the nature of the exchange relationship developed during Phase I

(either transactional or relational). Subjects were prompted by the last survey to provide their personal information in order to ensure that they receive credit for their participation. They were then free to leave the study room for a short break, but were asked to return punctually if they wished to take part in Phase II of the study.

#### ***4.5.2 Phase I Manipulations: Transactional or Relational Exchange***

The primary purpose of the Phase I manipulation was to create an underlying exchange relationship which was either predominately transactional or relational nature. To establish this relationship, subjects completed tasks for Campus Solutions in exchange for class credit. The tasks were the same across treatments but differed in their form of exchange (cf. Molm, 1997).

As is common in initial employer/employee exchanges, subjects in all treatments were told that they would receive the credit points promised to them for their completion of the tasks required of them (Rousseau, 1995; Conway and Briner, 2009). In order to ensure that both the relational and transactional treatments required similar amounts of time and effort from subjects, subjects in both treatments were permitted to use the Internet during Phase I to assist them with their tasks. In the relational treatment, however, permission to use the Internet was offered as a “special favor” that was being granted by the Campus Solutions representative to the subjects. It thus served as an initial relational exchange. These initial exchanges provided the foundation needed for the various breach inducements that were carried out in Phase II. The specific procedures used for the Phase I manipulations were adopted as a result of the pilot study, which is described in detail in Appendix A. See Table 8.2 in Appendix A for a list of the procedures.

##### ***4.5.2.1 Phase I, Treatment 1: Inducement of a transactional exchange relationship***

A transactional exchange relationship resembles one which has few relational elements and is more in line with the characteristics that define a transactional psychological contract

(Rousseau, 1990; Robinson, et al., 1994). Accordingly, the transactional exchange relationship was induced by presenting subjects with an explicit agreement for the work/reward exchange and by providing subjects with little feedback or guidance from the researcher (cf. Rousseau, 1995, Conway and Briner, 2009). In order to establish explicit agreements with the subjects, two task performance stipulations were used in the transactional setting. First, subjects were told that they must answer at least half of the questions in each task correctly in order to receive the credit point offered for participation in Phase I. Secondly, they were told that they must remain in the computer room for at least 45 minutes even if they finish all of the tasks earlier. This was done in order to help ensure that subjects were spending approximately the same amount of time on the tasks between treatments. The information regarding the points and the time required was written at the front of the room by the Campus Solutions representative. Then, in the case that they did not agree, subjects were asked to object to the work agreement stipulations before beginning the study.

During Phase I, subjects in the transactional treatments were allowed to work at their own pace through the tasks, they had little to no individual dialogue with the Campus Solutions representative, and they did not receive feedback or help on the tasks. The researcher showed little emotion towards the subjects and provided only the necessary information needed to start the sessions. The verbal script used in conjunction with this condition can be found in Appendix F, Script 1.

#### ***4.5.2.2 Phase I, Treatment 2: Inducement of a relational exchange relationship***

In line with the characteristics that define a relational psychological contract (Rousseau, 1990), a relational exchange relationship was induced by using implicit agreements for the work/reward relationship. In order to establish an implicit agreement, subjects were asked to complete

all five of the Phase I tasks in order to receive the credit point. Though they were also told that they must complete a minimum number of questions correctly in order to receive their point, this was not specifically defined, and they were assured that this should not be a problem if they “try their best” and “take the study seriously”. In the relational treatment, the terms of the agreement were not written at the front of the room, and subjects were not asked to explicitly object to the agreement as they were in the transactional treatment.

The relational resources offered to subjects included task feedback and praise, as well as help and assistance when requested. Subjects were also shown positive emotions (e.g. smiling), appreciation (e.g. saying thank you), and given candy to “help maintain energy levels” during the study sessions (cf. Grimmer and Oddy, 2007).

In addition to allowing subjects to use the Internet for assistance on the tasks, the representative held brief discussions with the group after each task. In comparison to the transactional treatments, this meant that the subjects could not work at their own pace, but were told by the researcher when to begin each task. This was done in an effort to give group-level performance feedback following each task, which allowed the representative to show an interest in the performance of subjects. It was also done in order to increase subjects’ involvement with the Campus Solutions’ representative and the organization. Real-time feedback was possible because the Qualtrics™ software allows the researcher to assess performance on a certain task immediately after they are carried out. In addition, the subjects were praised on tasks in which the majority performed well. Phrases like “great job, you are really helping us today”, and “thanks for providing all of this useful information” were also used by the representative to show appreciation for subjects’ participation in the study and increase levels of affect towards the



organization and the representative. The verbal script used in conjunction with this condition can be found in Appendix F, Script 2.

#### ***4.5.2.3 Conclusion of phase I: Manipulation checks***

At the conclusion of Phase I, subjects were presented with a final “feedback task” which contained the Phase I manipulation check measures. The primary measure used to assess the nature of the employment relationship consisted of eight relational contract items and seven transactional contract items from the Psychological Contract Index (Rousseau, 2000). The following measures were also taken: trust in the organization, affect towards the organization, leader-member exchange (LMX), and perceived organizational support (POS). Each of these measures and the reasons for including them as manipulation checks are explained in detail in section 13.1 below.

Once finished with this “feedback task”, subjects were told that they may leave the room for a short break, but that they must return punctually if they wished to take part in Phase II of the study. Attrition between Phase I and Phase II of the study was very low (less than one percent of the total sample) and, therefore, was not used as an outcome measure in this study.

#### ***4.5.3 Phase II Experimental Procedures***

At the start of Phase II, all subjects were again required to consent to their voluntary participation in the second phase of the study. The consent information for Phase II can be found in Appendix E.

Once subjects had given their consent, they were reminded that the performance stipulations for Phase II remained the same as those that they had experienced during in Phase I. This means, for example, that subjects returning from Phase I transactional treatments maintained the same transactional performance stipulations during Phase II. Then, depending on the treatment, breach

and resource substitutions (where applicable to the treatment) were induced. A detailed discussion of the different types of substitutions that followed breach can be found in the next sections.

Phase II consisted of the same types of tasks as those administered in Phase I. Though all subjects in all treatments were required to complete the same number of total questions during Phase II, the number of tasks presented to subjects in which the questions were contained varied by treatment. Again, this was done to ensure that the overall effort, productivity, and performance requirements of the subjects remained approximately the same across treatments. Performance on the final tasks following the breach inducement was measured. These performance tasks required longer, more complex exercises that required subjects to produce responses in an essay format. This allowed subjects to work at their own pace while requiring little assistance from the Campus Solutions representative. In all Phase II treatments, subjects were permitted to complete the tasks at their own pace. This provided the opportunity for subjects to engage in cyberloafing, which was assessed with a self-report measure.

Once the tasks had been completed, a final “feedback” task was required that contained measures of the other outcome variables. These include psychological contract breach, violation, self-reported cyberloafing, and self-reported performance. At the end of this task, subjects were again asked for personal identifying information to ensure that they received credit for the second phase of the study.

Finally, in order to assess organizational citizenship behaviors (OCB), subjects were prompted by the website to participate in a “voluntary survey”. They were told that this task was not required, and therefore did not count for credit, but was simply “important information needed by the Campus Solutions to better inform them of students’ opinions of the work

session". Subject participation in this task was used as a measure for OCB. All subjects were permitted to leave the study once they had completed the other required Phase II study tasks.

Following Phase II, a debriefing email was sent to each subject once all subjects had taken part in the study. The debriefing email can be found in Appendix B. This delay in the debriefing was done in order to prevent contamination effects that could have resulted by debriefing some subjects about the true nature of the study before others had had a chance to take part in it.

#### ***4.5.4 Phase II Manipulations: Transactional or Relational Breach***

According to a recent study by Jensen et al. (2010), transactional breach is defined as breaking an economic-oriented promise, while relational breach involves breaking a non-economic based promise. In the present study, breach was operationalized in a manner consistent with these descriptions. Table 4.1 lists the operationalization of the different breach conditions as these were carried out per treatment.

##### ***4.5.4.1 Exchange congruence***

Exchange congruence exists when the resources exchanged are consistent with that relationship (cf. Cropanzano and Mitchell, 2005). In this study, exchange congruence is operationalized by inducing manipulations that achieve a match between the nature of the exchange relationship, the nature of the breach, and the nature of the resource that is substituted to repair the breach (if applicable to the breach treatment). Withdrawal breach treatments do not involve the substitution of resources following breach.

In this experiment, an example of *exchange congruence* would result by inducing the development of a relational exchange (Phase I) and then inducing breach by withdrawing a resource of a relational nature and offering a relational substitute for that which was taken away

(Phase II). An example of *exchange incongruence* would result from doing the same in a relational exchange, but offering a transactional substitute.

It should be noted here that in all six experimental treatments, the researcher chose to induce only congruent withdrawal breach before examining the effects of this breach or the effects of resource substitutions (either congruent or incongruent). Operationally, this means that relational resources were removed from relational contracts and transactional resources were removed from transactional contracts. This was done in order to concentrate the focus of this study on what were believed to be the most salient instances of breach. Because the psychological contract provides the context within which the employer's breach, perceptions of breach, and feelings of violation (if they result from breach) occur (Jensen et al., 2010; Morrison and Robinson, 1997), it is reasonable to expect that the withdrawal of resources that are *congruent* with the underlying contract would be more salient and create a greater discrepancy in the mind of the employee than the withdrawal of *incongruent* resources. For example, an employee holding a predominantly transactional psychological contract would most likely perceive higher levels of breach and violation when pay, a transactional resource, is reduced, than when praise, a relational exchange, is withheld. As a general proposition, then, we expect instances of breach that are congruent (when the resources withheld in the exchange and the predominate nature of the psychological contract are the same) to be more salient to an employee than instances of breach that are incongruent (when the resources withheld in the exchange and the predominate nature of the psychological contract are different). For this reason, the researcher chose to match the nature of the contract and the nature of the withdrawn resources in each treatment before studying the effects of different substitutions. See an overview of the experimental design in Figure 4.2 below.

#### ***4.5.4.2 Employer withdrawal breach***

Withdrawal breach of a transactional nature is operationalized by offering fewer points per task (only 0.10 as opposed to 0.20). Subjects must therefore complete twice as many tasks during Phase II for the same reward that was offered in Phase I (one credit point). A substitute is not offered in an attempt to repair this breach. Withdrawal breach of a relational nature is operationalized by not allowing subjects to use the Internet to help them on Phase II tasks. Again, a substitute is not offered to repair this breach.

#### ***4.5.4.3 Employer substitution breach***

Employer substitution breaches are operationalized by first inducing the withdrawal breaches as described above. However, in each treatment, a substitution (either congruent or incongruent) is offered following the withdrawal breach. Substitution breach of a transactional nature is operationalized, first, by offering fewer points per task (only 0.10 as opposed to 0.20). Subjects must therefore complete twice as many tasks during Phase II for the same reward that was offered in Phase I (one credit point). The congruent substitute offered to repair this breach is shorter tasks than those required during Phase I. In actuality, however the same level of effort is required to complete the Phase II tasks in all treatments. Also, in this treatment, subjects are told at the beginning of the phase that they may leave when they have completed all of the required tasks.

Substitution breach of a relational nature is operationalized by not allowing subjects to use the Internet for help during Phase II. The congruent substitute offered to repair this breach is offering a substitute of easier tasks (as claimed by the Campus Solutions representative) than those required during Phase I. Again, in actuality, the same level of effort is required to complete

the Phase II tasks in all treatments. See Table 4.1 below for a list of the complete treatments and a short description of the manner in which they were operationalized in this study.

The verbal scripts used in conjunction with the substitution treatments can be found in Appendix F, Scripts 3,4,5, and 6.

**FIGURE 4.2**

**2X4 Overview of Study**

**Manipulation 2: Breach Treatment (Phase II)**

**Manipulation 1: Underlying Psychological Contract (Phase I)**

	Transactional Control (No Breach)	Transactional Breach			Relational Control (No Breach)	Relational Breach		
		Withdrawal	Transactional Substitute	Relational Substitute		Withdrawal	Transactional Substitute	Relational Substitute
<b>Transactional Psychological Contract</b>	Outcome Measures	Outcome Measures	Outcome Measures	Outcome Measures	NA	NA	NA	NA
<b>Relational Psychological Contract</b>	NA	NA	NA	NA	Outcome Measures	Outcome Measures	Outcome Measures	Outcome Measures
<b>Hypotheses</b>	H1, H2	H1, H2, H3, H4			H1, H2	H1, H2, H3, H4		

**TABLE 4.1**

**Summary of Hypotheses and Operational Procedures for each Breach Treatment (Phase II)**

Hypotheses	Treatment	Phase I: Nature of Contract	Phase II: Form of Breach	Phase II: Exchange Congruence	Experimental Operationalization: Breach & Substitute (when applicable)	Managerial Example of a Parallel Workplace Situation
H1, H2	Relational Contract/ No Breach	Relational	NA	NA	<b>No Breach:</b> Subjects carry out tasks under same conditions as Phase I.	<b>No Breach</b>
H1, H2	Transactional Contract/ No Breach	Transactional	NA	NA	<b>No Breach:</b> Subjects carry out tasks under same conditions as Phase I.	<b>No Breach</b>
H1, H2	Relational Contract/ Withdrawal	Relational	Relational Withdrawal	NA	<b>Relational Breach:</b> Subjects not permitted to use the Internet for help with Phase II tasks.	<b>Relational Breach:</b> Employee's manager decides employee is no longer allowed to access particular databases or use Internet at work (which would make work tasks easier).
H1, H2	Transactional Contract/ Withdrawal	Transactional	Transactional Withdrawal	NA	<b>Transactional Breach:</b> Fewer points per task – twice as many tasks required during Phase II to earn same number of points as Phase I.	<b>Transactional Breach:</b> Employee has to complete more tasks for the same amount of pay.
H1, H2, H3, H4	Relational Contract/ Relational Substitution	Relational	Relational Substitution	Congruent	<b>Relational Breach:</b> Subjects not permitted to use the Internet for help with Phase II tasks. <b>Relational Substitute:</b> Easier tasks.	<b>Relational Breach:</b> Employee no longer allowed to access particular databases or Internet. <b>Relational Substitute:</b> The manager offers to take over tasks that require database, Internet.



H1, H2, H3, H4	Relational Contract/ Transactional Substitution	Relational	Transactional Substitution	Incongruent	<p><b><u>Relational Breach:</u></b> Subjects not permitted to use the Internet for help with Phase II tasks.</p> <p><b><u>Transactional Substitute:</u></b> More tasks to give subjects more chances to earn points.</p>	<p><b><u>Relational Breach:</u></b> Employee no longer allowed to access particular databases or Internet.</p> <p><b><u>Transactional Substitute:</u></b> Additional tasks are given, but pay is also increased.</p>
H1, H2, H3, H4	Transactional Contract/ Transactional Substitute	Transactional	Transactional Substitution	Congruent	<p><b><u>Transactional Breach:</u></b> Fewer points per task – twice as many tasks required during Phase II to earn same number of points as Phase I.</p> <p><b><u>Relational Substitute:</u></b> Shorter tasks and subjects told they can leave when finished.</p>	<p><b><u>Transactional Breach:</u></b> Employee has to complete more tasks for same amount of pay.</p> <p><b><u>Transactional Substitute:</u></b> Employee is given more tasks, but they are simpler than the original tasks. Also, he is told he may leave for the day when finished.</p>
H1, H2, H3, H4	Transactional Contract/ Relational Substitute	Transactional	Relational Substitution	Incongruent	<p><b><u>Transactional Breach:</u></b> Fewer points per task – twice as many tasks required during Phase II to earn same number of points as Phase I.</p> <p><b><u>Relational Substitute:</u></b> Easier tasks.</p>	<p><b><u>Transactional Breach:</u></b> Employee has to complete more tasks for same amount of pay.</p> <p><b><u>Relational Substitute:</u></b> Manager offers the employee help with tasks.</p>

## 4.6 Measures

### 4.6.1 *Manipulation Checks: Nature of the Exchange Relationship*

The nature of the underlying exchange relationship that develops during the initial phases of the experiment was assessed using transactional and relational contract items adapted for this study from the Psychological Contract Index (Rousseau, 2000). In addition, several other measures were assessed including: trust in the organization, affect towards the organization, leader-member exchange (LMX), and perceived organizational support (POS). The decision to use measures of trust and affect is based on previous research on the relational versus transactional nature of psychological contracts. Relational contracts have been found to be associated with trust and belief in good faith and fairness (e.g. Rousseau, 1990; Rousseau, 1995) and to engender feelings of affective involvement in the employee (e.g. Grimmer and Oddy, 2007). For these reasons we would expect subjects' who have developed psychological contracts of a relational nature to score higher on measures of trust and affect than those who have developed contracts of a transactional nature. In addition to these measures, measures of leader-member exchange (LMX) and perceived organizational support (POS) allow the researcher to tie the findings to a broader social exchange literature (e.g. Dulac et al., 2008). Because higher levels of LMX and POS contribute to high-quality social exchange relationships in which employees feel a strong obligation to reciprocate (Dulac et al., 2008), we would expect subjects' with more relational psychological contracts to perceive higher levels of LMX and POS than those holding more transactional contracts.

The section below discusses each of the measures used in this study. For a complete list of the items used for each measure, see Appendix G. Unless otherwise stated below, all items were assessed using a 100 point Likert scale on a sliding ruler as this method proved to be most

effective at eliciting responses during the pilot studies. All items were measured on a Likert scale from (0) strongly disagree to (100) strongly agree. This scale differs from the Likert scale anchors commonly used in conjunction with these study measures: (1 – 5) or (1 – (7) (strongly disagree to strongly agree). The implications of the decision to use this scale in this study are explained in the Discussion section.

#### ***4.6.1.1 Transactional and relational psychological contracts***

Transactional and relational psychological contracts were measured using items adapted from the Psychological Contract Index (PCI) (Rousseau, 2000; Hui, Lee, and Rousseau, 2004), as these pertain to the nature of this study. Seven items were used to measure the transactional nature of the psychological contract. These included five items adapted directly from the PCI (Rousseau, 2000). For example, in this study, a sample item that assesses the transactional nature of the psychological contract is: “If I had felt like it, I would have left this study at any time I wanted”, which was adapted from the original PCI item: “Leave (the job) at any time I choose” (Rousseau, 2000). In addition, the following items were added by the researcher to measure transactional contracts: “I do not identify with this study or this research” and “During the session, the Campus Solutions representative took an interest in students’ concerns,” which was a reverse scored item. Cronbach’s alpha reached ( $\alpha = .60$ ) for the transactional measure. Though this is somewhat lower than the generally accepted internal reliability level of at least ( $\alpha = .70$ ), it is similar to the alpha level achieved by Hui et al. (2004) in their validation of the transactional items contained in the PCI instrument, which was ( $\alpha = .63$ ).

Eight items were used to measure the relational nature of the psychological contract. These included six items adapted directly from the PCI (Rousseau, 2000). For example, in this study, a sample item that assesses the relational nature of the psychological contract is: “I would protect

Campus Solutions' image when talking to others about this study". This was adapted from the original PCI item: "Protect this organization's image." In addition, the following items were added by the researcher to measure relational contracts: "I expect Campus Solutions to reciprocate the effort that students put into their tasks" and "If given the chance, I would consider working for Campus Solutions in the future." The first item was added to assess the reciprocal nature of the relationship and the second was added to assess the possibility of a longer-term contract with the employer, as both are characteristic of relational psychological contracts (Rousseau and McLean Parks, 1993). Cronbach's alpha reached ( $\alpha = .80$ ) for the relational measure.

#### ***4.6.1.2 Trust in the organization***

Subjects' general levels of trust in the organization were measured using four items adapted from Robinson and Rousseau (1994), which were originally created by Gabarro and Athos (1976). A sample item from this measure is, "This organization is open and upfront with me". Cronbach's alpha reliability reached ( $\alpha = .84$ ) in this study.

#### ***4.6.1.3 Affect towards the organization***

Subjects' affect towards the organization was measured with items adapted from Wayne and Ferris (1990). In this study, three items were included, an example of which was: "Working for this organization would be enjoyable." Cronbach's alpha reliability was measured to be ( $\alpha = .70$ ).

#### ***4.6.1.4 Leader-member exchange***

Leader-member exchange was measured with items adapted from both the seven-item Leader-Member Exchange VII Scale from Graen and Uhl-Bien (1995) and the five-item LMX scale by Duchon, Green, and Taber (1986). In order to incorporate the aspect of supervisor feedback, which was captured in the Graen and Uhl-Bien (1995) scale with the item: "Do you

know where you stand with your leader... do you usually know how satisfied your leader is with what you do?”, the researcher added the item: “This representative gave us feedback on our tasks.” In this study, the words “leader” or “immediate supervisor”; which were used in the original measures, were replaced with “Campus Solutions Representative”. Cronbach’s alpha reached ( $\alpha = .90$ ) for this measure.

#### ***4.6.1.5 Perceived organizational support***

Perceived organizational support was measured with six items adapted from Eisenberger, Huntington, and Hutchison, 1986. An example was: “The organization and its representatives try to make the tasks as interesting as possible.” Cronbach’s alpha for this measure was ( $\alpha = .73$ ).

### ***4.6.2 Outcome Variables: Perceived Breach and Violation***

#### ***4.6.2.1 Perceived breach***

Subjects’ perceptions of breach were measured using Robinson and Morrison’s (2000,  $\alpha = .92$ ) scale, which is the most common measure of psychological contract breach used in the literature. It should be noted, however, that this measure assesses the extent to which the employee’s psychological contract has been *fulfilled*, and that these items, in line with the vast amount of studies in the literature, must be reverse-scored in order to assess perceptions of breach. An example of an item adapted for this study is: “Campus Solutions kept all of the promises it made to me at the start of this study.” Cronbach’s alpha reached ( $\alpha = .82$ ) for the three items used in this study.

#### ***4.6.2.2 Perceived violation***

Subjects’ perceptions of psychological contract violation was measured with four items adapted from Robinson and Morrison (2000). An example of an item is: “I feel extremely frustrated by this study.” Cronbach’s alpha reached ( $\alpha = .90$ ) in this study.

### ***4.6.3 Performance Outcome Variables: Task Performance, OCB, and Cyberloafing***

#### ***4.6.3.1 Task Performance***

Task performance was measured with two objective measures of performance and one self-report measure. The first objective measure of task performance was the number of words entered on the two essay tasks required during Phase II. The second objective measure attempted to correct for individual differences in typing speed and assessed the number of words entered divided by the time spent on the same two essay tasks (words entered / time spent on task). Time spent on task was recorded by the Qualtrics™ survey software and was measured in minutes and seconds. In addition to these objective measures, a self-report measure of subjects' task performance was administered using adaptations of items from the in-role behavior scale created by Williams and Anderson (1991;  $\alpha = .86$ ). An example of an item is "I fulfilled the requirements of this study that were described to me by the Campus Solutions representative." Cronbach's alpha for the three items used in this study was ( $\alpha = .91$ ).

#### ***4.6.3.2 Organizational Citizenship Behavior***

The measure of organizational citizenship behavior followed at the very end of the study after subjects had both registered and chosen the class section for which they would like their credit to count. At this point, subjects were asked to take part in a voluntary feedback survey that asked them what they liked most and what they liked least about the study sessions. They were told that participation in the survey would not affect their credit points and that the information was being used to better inform Campus Solutions about the students' experience of the sessions. Participation in the OCB task was assessed using dummy variable coding: 1 (took part in voluntary survey) and 0 (did not take part in voluntary survey). This task can be found in Appendix D, Task 6.

#### ***4.6.3.3 Cyberloafing and counterproductive work behaviors***

Cyberloafing behaviors were assessed using a self-report measure. Under the pretense that “Campus Solutions” was interested in assessing its data collection methods, subjects were asked to indicate the extent to which boredom or uninteresting task content lead them to surf the Internet or use their cell phones. Four items were created specifically for this experiment. These included the following questions: “During this session, I went to websites that were not related to this study.”, “I checked my Facebook page or some other social networking site during the past hour.”, “I checked my email during this session.”, and “I sent or read a text message.” The self-reported frequency of such behaviors was measured on a six-point Likert scale that ranged from (0) Never to (8) More frequently.

## CHAPTER V: Results

### 5.1 Preliminary Analyses

#### 5.1.1 *Descriptive Data*

Table 5.1 lists the means, standard deviations, and sample sizes for all study variables, separated by experimental treatment. Table 5.2 shows the means, standard deviations and zero-order correlations for all study variables across all treatments. Cronbach's alpha reliability estimates for the study measures are shown on the diagonal where applicable.

It is important to note that the means and standard deviations for both employees' perceptions of breach ( $M = 20.60$ ,  $SD = 19.11$ ) and feelings of violation ( $M = 19.49$ ,  $SD = 20.17$ ) are relatively low. Both variables were assessed on a 100 point scale, which suggests that subjects generally perceived low levels of breach and feelings of violation in response to the breach inductions used in the experiment.



**TABLE 5.1**

**Means, Standard Deviations, and Sample Sizes for all Study Variables per Experimental Treatment**

Experimental Treatment										
		Relational Control	Relational Breach, No Substitute	Relational Breach, Relational Substitute	Relational Breach, Transactional Substitute	Transactional Control	Transactional Breach, No Substitute	Transactional Breach, Transactional Substitute	Transactional Breach, Relational Substitute	Total for all Treatments
Variable										
<b>Affect</b>	Mean	65.22	62.98	62.86	66.02	62.70	55.32	54.16	61.79	61.24
	SD	15.14	19.00	21.43	17.22	15.94	17.73	22.53	18.73	19.08
	Sample Size	49	67	54	42	45	49	57	55	418
<b>Leader-Member Exchange</b>	Mean	85.06	86.49	89.15	88.48	79.88	67.61	67.69	76.78	80.10
	SD	12.15	12.56	10.50	10.35	17.67	19.35	18.22	14.07	16.76
	Sample Size	49	67	54	42	45	49	57	55	418
<b>Perceived Organizational Support</b>	Mean	76.61	76.60	76.40	77.46	71.69	60.99	62.69	72.97	71.93
	SD	13.20	15.42	16.16	14.27	16.27	16.97	17.53	15.19	16.76
	Sample Size	49	67	54	42	45	49	57	55	418
<b>Psychological Contract Transactional</b>	Mean	32.52	41.69	39.06	38.04	47.16	46.93	46.50	41.70	41.77
	SD	14.31	15.55	15.70	16.18	18.09	15.92	15.91	16.56	16.55
	Sample Size	49	67	54	42	45	49	57	55	418
<b>Psychological Contract Relational</b>	Mean	75.40	74.27	77.49	73.24	74.10	64.47	67.82	74.50	72.70
	SD	11.06	13.31	14.21	14.15	11.75	13.79	13.19	12.83	13.59
	Sample Size	49	67	54	42	45	49	57	55	418
<b>Trust</b>	Mean	84.21	84.18	88.59	87.17	81.72	71.82	76.91	82.27	82.10
	SD	12.76	15.20	14.43	13.76	17.27	16.89	16.13	13.80	15.80
	Sample Size	49	67	54	42	45	49	57	55	418
<b>Perceived Breach</b>	Mean	9.30	17.73	14.43	29.95	14.01	29.92	23.92	26.88	20.60
	SD	9.96	16.26	16.51	22.81	13.49	22.24	19.67	19.34	19.16
	Sample Size	49	67	55	42	45	49	56	55	418
<b>Feelings of Violation</b>	Mean	7.50	15.36	14.83	26.16	18.16	24.29	22.14	22.93	19.49
	SD	6.35	18.33	19.13	20.64	14.86	26.11	20.49	19.71	20.23
	Sample Size	22	63	30	30	27	49	43	44	308
<b>Task Performance - Total Words Entered</b>	Mean	316.42	280.35	313.95	346.12	311.58	285.20	274.54	352.96	308.68
	SD	164.83	106.53	161.60	131.80	153.15	103.96	141.08	150.56	142.01
	Sample Size	50	62	55	43	45	49	57	55	416

**TABLE 5.1 continued**

**Means, Standard Deviations, and Sample Sizes for all Study Variables per Experimental Treatment**

Experimental Treatment										
Variable		Relational Control	Relational Breach, No Substitute	Relational Breach, Relational Substitute	Relational Breach, Transactional Substitute	Transactional Control	Transactional Breach, No Substitute	Transactional Breach, Transactional Substitute	Transactional Breach, Relational Substitute	Total for all Treatments
<b>Task Performance - Total Words Entered / Minute</b>	Mean	18.54	18.36	19.13	19.23	16.72	17.74	20.51	20.67	18.92
	SD	5.97	5.12	6.53	5.41	7.01	4.40	4.67	5.31	5.67
	Sample Size	50	62	55	43	45	49	57	55	416
<b>Task Performance - Self Reported</b>	Mean	92.22	94.21	94.28	90.87	91.33	91.31	89.82	89.29	91.76
	SD	9.38	7.86	7.29	10.46	13.19	10.22	11.04	11.16	10.17
	Sample Size	50	67	55	42	45	47	57	55	418
<b>Organizational Citizenship Behavior</b>	Mean	0.60	0.39	0.47	0.58	0.49	0.31	0.26	0.47	0.44
	SD	0.49	0.49	0.50	0.50	0.51	0.47	0.44	0.50	0.50
	Sample Size	50	67	55	43	45	49	57	55	421
<b>Cyberloafing</b>	Mean	3.43	1.15	1.59	1.18	2.11	5.44	3.49	3.16	2.73
	SD	2.94	2.30	2.89	2.80	2.85	6.01	4.69	4.46	4.05
	Sample Size	49	59	44	38	45	48	57	55	395

**TABLE 5.2**

**Means, Standard Deviations, and Zero-Order Correlations for Study Variables**

Means, Standard Deviations, and Zero-Order Correlations for Study Variables																						
Variable	N <sup>1</sup>	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Transactional or Relational Contract <sup>a</sup>	421	0.49	0.50																			
2. Transactional Employer's Breach <sup>b</sup>	210	0.53	0.50	---																		
3. Relational Employer's Breach <sup>c</sup>	210	0.47	0.50	---	---																	
4. Employer's Breach (Both) <sup>d</sup>	421	0.78	0.42	---	---	---																
5. Substitution vs. Breach <sup>e</sup>	332	0.64	0.48	---	---	---	---															
6. Congruence of Substitute <sup>f</sup>	210	0.53	0.50	---	---	---	---	---														
7. Affect towards Employer	418	61.24	19.08	-.150**	-.154*	.154*	-.082	.015	-.127	(.70)												
8. Leader Member Exchange	418	80.10	16.76	-.432**	-.506**	.506**	-.080	.038	-.113	.518**	(.90)											
9. Perceived Organizational Support	418	71.93	16.76	-.290**	-.270**	.270**	-.071	.053	-.164*	.621**	.692**	(.73)										
10. Transactional Psychological Contract	418	41.77	16.55	.220**	.169*	-.169*	.083	-.055	.085	-.341**	-.300**	-.401**	(.60)									
11. Relational Psychological Contract	418	72.70	13.59	-.183**	-.162*	.162*	-.084	.092	-.051	.629**	.621**	.678**	-.330**	(.80)								
12. Trust in Employer	418	82.10	15.80	-.245**	-.276**	.276**	-.030	.127*	-.059	.589**	.711**	.726**	-.277**	.742**	(.84)							
13. Perceptions of Breach	418	20.60	19.16	.173**	.105	-.105	.253**	.013	-.223**	-.170**	-.355**	-.354**	.091	-.305**	-.350**	(.82)						
14. Feelings of Violation	308	19.49	20.23	.149**	.050	-.050	.126*	.057	-.127	-.224**	-.262**	-.332**	.214**	-.291**	-.368**	.417**	(.90)					
15. Task Performance - Total Words Entered	416	308.68	142.01	-.018	-.050	.050	-.032	.130*	-.187**	.130**	.088	.081	-.138**	.133**	.105*	-.039	-.061					
16. Task Performance - Words Entered / Minute	416	18.92	5.67	.025	.128	-.128	.121*	.165**	-.019	.005	.034	.032	-.083	.061	.037	-.078	-.009	.596**				
17. Task Performance - Self-Reported	418	91.76	10.17	-.135**	-.158*	.158*	.000	-.095	.100	.201**	.317**	.283**	-.166**	.272**	.294**	-.284**	-.183**	.088	.108*	(.91)		
18. Organizational Citizenship Behavior <sup>g</sup>	421	0.44	0.50	-.120*	-.155*	.155*	-.122*	.082	-.155*	.042	.141**	.097*	-.128**	.049	.004	-.056	.004	.081	.043	.060		
19. Cyberloafing	395	2.73	4.05	.211**	.237**	-.237**	-.012	-.062	.038	-.001	-.123*	-.121*	.094	-.046	-.088	.089	.145*	-.074	.047	-.105*	-.055	(.90)

<sup>1</sup> Sample Size per correlation (pair-wise deletion)

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

a. 0 = Relational, 1 = Transactional

b. 0 = No Breach, 1 = Transactional Employer's Breach

c. 0 = No Breach, 1 = Relational Employer's Breach

d. 0 = No Breach, 1 = Transactional or Relational Employer's Breach

e. 0 = Breach without Substitution, 1 = Breach with Substitution

f. 0 = Incongruent Substitute, 1 = Congruent Substitute

g. 0 = Subject did not complete voluntary task, 1 = Subject did complete voluntary task

### 5.1.2 Phase I - Manipulation Check Variables

Table 5.3 shows the results of the manipulation checks for the variables used to assess transactional and relational treatments.

**TABLE 5.3**  
**Summary of T-Test Results Comparing Phase I Manipulation Check Measures**

Measure	Transactional Treatment			Relational Treatment			Sig. (2 tailed)**
	N*	Mean	SD	N*	Mean	SD	
Affect	220	59.06	19.29	198	63.67	18.58	0.013
LMX	220	78.87	16.38	198	85.68	14.34	0.000
POS	220	70.55	13.59	198	75.09	13.22	0.000
PC-Transactional	220	44.58	16.80	198	38.64	15.72	0.000
PC-Relational	220	67.73	17.44	198	76.59	14.65	0.001
Trust	220	73.82	18.13	198	87.07	11.66	0.000

\* Pair-wise deletion

Note: LMX = leader-member exchange, POS = perceived organizational support, PC = psychological contract

The mean differences between the treatments were all significant and were all of the magnitude anticipated by the researchers. Subjects in the transactional treatments reported significantly lower levels of affect than those in the relational treatments, significantly lower levels of leader-member exchange (LMX) than those in the relational treatments, and significantly lower levels of perceived organizational support (POS) than those in the relational treatments. In addition, subjects in the transactional treatments reported significantly higher transactional contracts than those in the relational treatments and significantly lower relational contracts than subjects in the relational treatments. Lastly, subjects in the transactional treatments reported significantly lower levels of trust than those in the relational treatments. These findings indicate that the treatments successfully induced different types of psychological contracts, setting the conditions necessary for the psychological contract breach manipulations in Phase II of the experiment.

## 5.2 Analyses and Results of Hypotheses 1 – 4

### 5.2.1 Hypothesis 1: Comparison of Perceived Breach in the No-Breach, Withdrawal Breach, and Substitution Breach Treatments

Hypothesis 1a states that subjects experiencing either employer's withdrawal breach or employer's substitution breach will report higher levels of perceived breach than those not experiencing an employer's breach. Hypothesis 1b states that subjects experiencing substitution breach will report lower levels of perceived breach than those who are experiencing withdrawal breach. These hypotheses were tested with a one-way ANOVA. Table 5.4 lists the sample size for each treatment, the means and standard deviations of subjects' perceptions of breach, as well as the results of the ANOVA comparing the three treatments.

Table 5.5 shows the results of the Scheffe post-hoc test. When the results of an ANOVA are significant, the Scheffe test assesses all pairwise comparisons in order to establish where the significant differences between the individual treatments exist. Though many post-hoc tests exist, the Scheffe post-hoc test was chosen here because it is generally more conservative than other tests and it is appropriate for comparing means from unequally sized samples (Maxwell and Delaney, 2004). Please note that (when applicable) this post-hoc test will be used in conjunction with all ANOVA analyses in this study.

Figure 5.1 shows a graphical comparison of the means of perceived breach for the control, withdrawal, and substitution treatments.

The results for Hypothesis 1a indicate that the mean for breach perceptions in the control (no breach) treatment is lower ( $M = 11.56$ ,  $SD = 11.95$ ) than the means for either the withdrawal breach treatment ( $M = 22.88$ ,  $SD = 19.87$ ) or the substitution breach treatment ( $M = 23.41$ ,  $SD = 20.20$ ). In addition, the results of the one-way ANOVA, show that a significant difference exists between the three conditions ( $F = 14.400$ ,  $p < .01$ ). Results of the Scheffe post-hoc analyses

confirm that the mean of the control treatment (no breach) is significantly lower than the mean for both the withdrawal and the substitution treatment. Thus, Hypothesis 1a is supported. However, a significant difference in breach perceptions between the withdrawal treatment and the substitution treatment does not exist. In addition, the mean of breach perceptions in the withdrawal treatment is actually minimally lower than that of the substitution treatment, which is opposite of the difference hypothesized. Therefore, Hypothesis 1b is not supported.

**TABLE 5.4**

**Summary of Results for Hypotheses 1a and 1b: Sample Size, Means, Standard Deviations, and ANOVA Results of Subjects' Perceptions of Breach**

Perceptions of Breach								
Type of Breach	N*	Mean	SD	SS	d	MS	F	p
Control, No Breach	94	11.56	11.95					
Withdrawal Breach	116	22.88	19.87					
Substitution Breach	208	23.41	20.20					
Total	418	20.60	19.16					
Results of ANOVA				9931.570	2	4965.790	14.400	0.000

**TABLE 5.5**

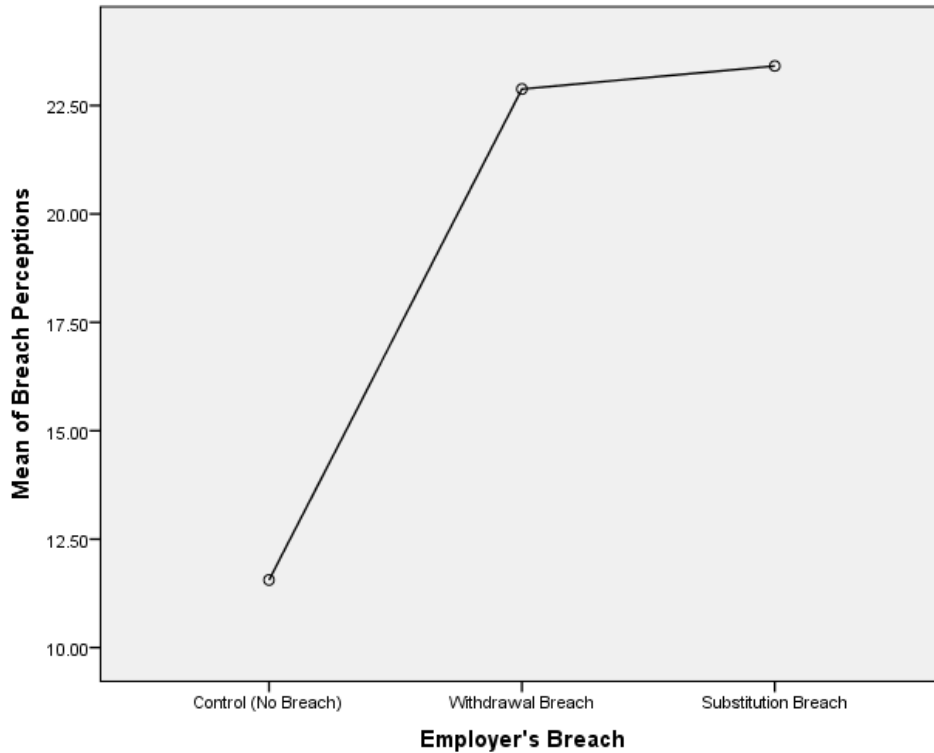
**Hypotheses 1a and 1b: Results of Scheffe Post-Hoc Analyses for Perceptions of Breach**

Breach Conditions:		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control - No Breach	Substitution Breach	<b>-11.853*</b>	2.308	0.000	-17.523	-6.184
	Withdrawal Breach	<b>-11.321*</b>	2.577	0.000	-17.652	-4.990
Withdrawal Breach	Control - No Breach	<b>11.321*</b>	2.577	0.000	4.990	17.652
	Substitution Breach	-0.533	2.152	0.970	-5.819	4.754
Substitution Breach	Control - No Breach	<b>11.853*</b>	2.308	0.000	6.184	17.523
	Withdrawal Breach	0.533	2.152	0.970	-4.754	5.819

\*. The mean difference is significant at the 0.05 level.

**FIGURE 5.1**

**Hypotheses 1a and 1b: Subjects' Mean Perceptions of Breach Following No Breach, Withdrawal Breach, and Substitution Breach**



**5.2.2 Hypothesis 2: Comparison of Feelings of Violation in the No-Breach, Withdrawal Breach, and Substitution Breach Treatments**

Hypothesis 2a states that subjects experiencing either employer's withdrawal breach or employer's substitution breach will report higher levels of violation than those not experiencing an employer's breach. Hypothesis 2b states that those experiencing substitution breach are hypothesized to report lower levels of violation than those who are experiencing withdrawal breach. These hypotheses were tested with a one-way ANOVA. Table 5.6 lists the sample size, means of subjects' feelings of violation, and standard deviations for each of the three treatments as well as the results of the ANOVA. Table 5.7 shows the results of the Scheffe post-hoc test.

Figure 5.2 gives a graphical comparison of the means of violation for the control, withdrawal and substitution treatments.

Similar to the findings for perceptions of breach, the mean of violation for the control (no breach) condition ( $M = 13.37$ ,  $SD = 12.88$ ) is somewhat lower than the mean for the withdrawal breach condition ( $M = 19.27$ ,  $SD = 22.41$ ) and for the substitution breach condition ( $M = 21.70$ ,  $SD = 20.17$ ). In addition, results of the one-way ANOVA, which compared the differences between the means, show that a significant difference exists between the conditions ( $F = 3.171$ ,  $p < .05$ ). However, the Scheffe post-hoc analyses indicate that a significant difference in violation exists only between the control condition and substitution breach. However, a significant difference was not found to exist between the control and withdrawal breach. Therefore, Hypothesis 2a is not fully supported. In addition, although not significant, the mean for violation in the withdrawal treatment is slightly lower than the mean in the substitution treatment. This difference is the opposite of that hypothesized. Hypothesis 2b is therefore also not supported.

**TABLE 5.6**

**Summary of Results for Hypotheses 2a and 2b: Sample Size, Means, Standard Deviations, and ANOVA Results of Subjects' Feelings of Violation**

Feelings of Violation								
Type of Breach	N*	Mean	SD	SS	d	MS	F	p
Control, No Breach	49	13.37	12.88					
Withdrawal Breach	112	19.27	22.41					
Substitution Breach	147	21.70	20.17					
Total	308	19.49	20.23					
Results of ANOVA				2560.052	2	1280.026	3.17	0.043



**TABLE 5.7**

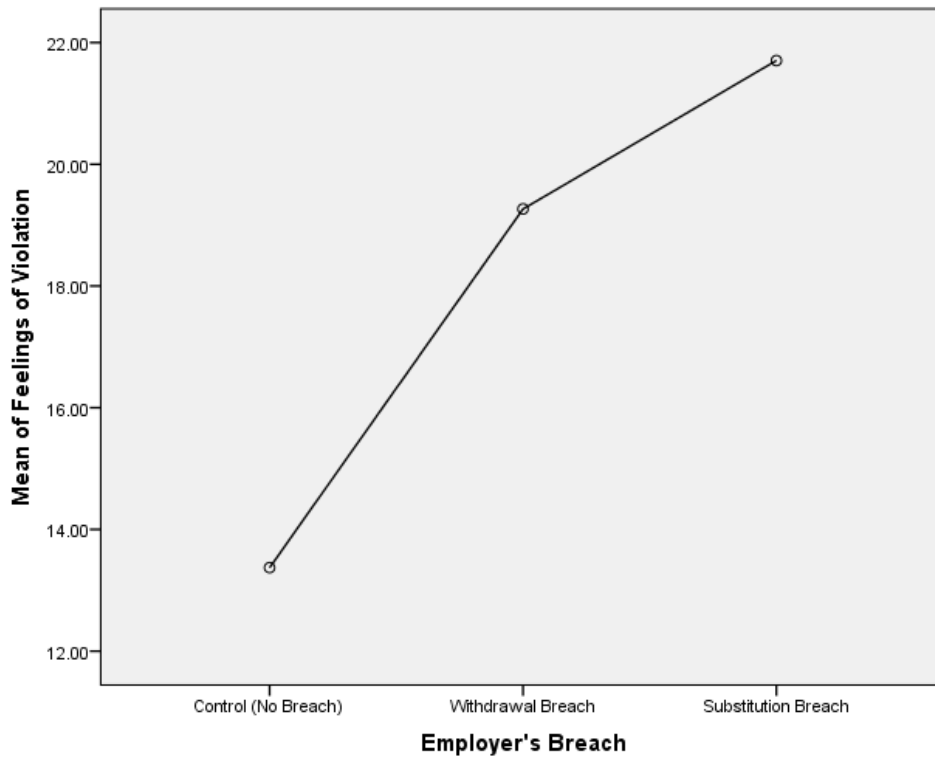
**Hypotheses 2a and 2b: Results of Scheffe Post-Hoc Analyses for Feelings of Violation**

Breach Condition		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control - No Breach	Substitution Breach	<b>-8.332*</b>	3.314	0.044	-16.484	-0.180
	Withdrawal Breach	-5.893	3.441	0.232	-14.358	2.571
Withdrawal Breach	Control - No Breach	5.893	3.441	0.232	-2.571	14.358
	Substitution Breach	-2.438	2.520	0.627	-8.637	3.760
Substitution Breach	Control - No Breach	<b>8.332*</b>	3.314	0.044	0.180	16.484
	Withdrawal Breach	2.438	2.520	0.627	-3.760	8.637

\*. The mean difference is significant at the 0.05 level.

**FIGURE 5.2**

**Hypotheses 2a and 2b: Subjects' Mean Feelings of Violation Following No Breach, Withdrawal Breach, and Substitution Breach**



### ***5.2.3 Hypothesis 3: The Effect of Congruence on Employees' Perceptions of Breach***

#### ***5.2.3.1 H3a: The effect of congruence within the transactional treatments***

Hypothesis 3a states that, within the transactional treatments, a congruent substitute of withdrawn resources will result in lower perceptions of breach than an incongruent substitute of resources. Hypothesis 3a was tested using a one-way ANOVA that compared the differences between the means of subjects' perceptions of breach in the transactional treatments. In all of the transactional treatments, the employer's breach involved the withdrawal of transactional resources. For purposes of meaningful comparison, the transactional control treatment (no breach) and the transactional withdrawal treatment (no substitution of resources) were included in the following ANOVA analyses.

Table 5.8 shows the sample size, the means of breach perceptions, the standard deviations, and the ANOVA results for the transactional treatments. Table 5.9 lists the results of the Scheffe post-hoc analyses. In addition, Figure 5.3 shows a graphical comparison of the means of breach perceptions for the transactional treatments.

Within the transactional treatments, the means for the congruent transactional breach substitute ( $M = 23.92$ ,  $SD = 19.67$ ) and the incongruent relational breach substitute ( $M = 26.88$ ,  $SD = 19.34$ ) are similar, which suggests that no significant difference exists between the congruent and the incongruent treatments.

Although the results of the one-way ANOVA for the transactional treatments are significant ( $F = 6.096$ ,  $p = .001$ ), the Scheffe post-hoc analysis indicates that significant differences were only found between the control treatment and the relational substitution treatment as well as between the control treatment and the withdrawal treatment. However, the post-hoc analysis does not indicate that a significant difference exists between the congruent and incongruent

treatments. Thus, hypothesis 3a is not supported.

**TABLE 5.8**  
**Summary of Results for Hypothesis 3a: Sample Size, Means, Standard Deviations, and ANOVA Results of Subjects' Perceptions of Breach in the Transactional Treatments**

Perceptions of Breach in the Transactional Treatments								
Treatment <sup>1</sup>	N*	Mean	SD	SS	d	MS	F	p
Control	45	14.01	13.49					
Withdrawal	49	29.92	22.24					
Congruent	56	23.92	19.67					
Incongruent	55	26.88	19.34					
Total	205	23.97	19.79					
Results of ANOVA				6660.983	3	2220.328	6.096	0.001

<sup>1</sup> Note about Treatments: Control: No Breach, No Breach; Withdrawal: Transactional Withdrawal Breach, No Substitute; Congruent: Transactional Withdrawal Breach, Transactional Substitute; Incongruent: Transactional Withdrawal Breach, Relational Substitute

\* Pair-wise deletion

**TABLE 5.9**  
**Hypotheses 3a: Results of Scheffe Post-Hoc Analyses for Perceptions of Breach**

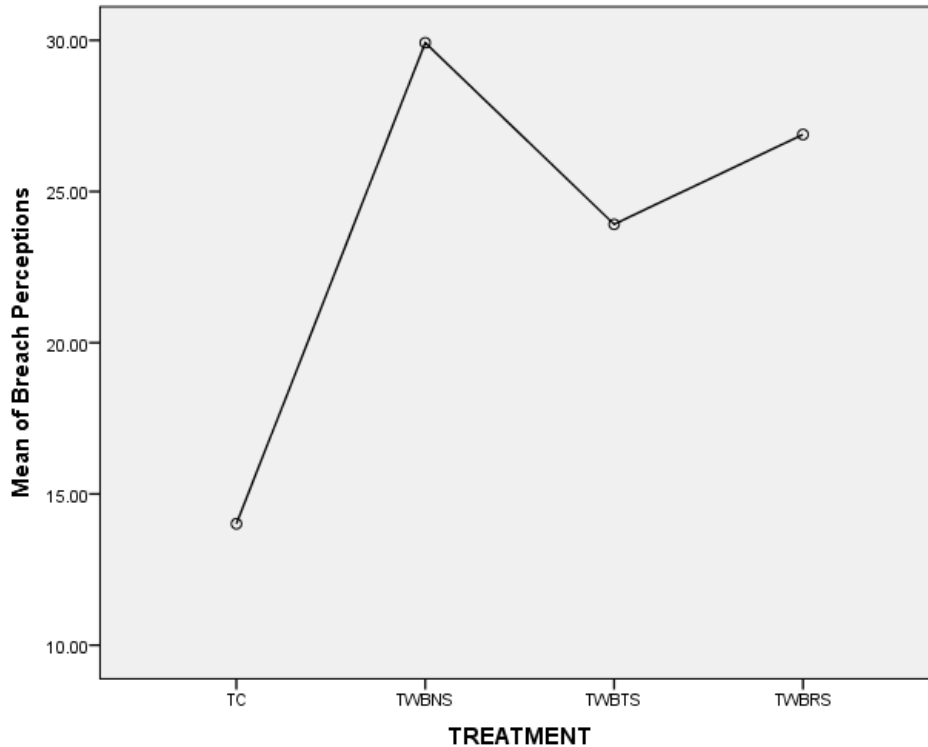
(I) TREATMENT		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
TC	TWBNS	<b>-15.904*</b>	3.941	0.001	-27.013	-4.794
	TWBTS	-9.902	3.821	0.085	-20.674	0.870
	TWBRB	<b>-12.870*</b>	3.836	0.012	-23.686	-2.054
TWBNS	TC	<b>15.904*</b>	3.941	0.001	4.794	27.013
	TWBTS	6.002	3.733	0.462	-4.524	16.527
	TWBRB	3.034	3.749	0.884	-7.537	13.604
TWBTS	TC	9.902	3.821	0.085	-0.870	20.674
	TWBNS	-6.002	3.733	0.462	-16.527	4.524
	TWBRB	-2.968	3.623	0.880	-13.183	7.247
TWBRB	TC	<b>12.870*</b>	3.836	0.012	2.054	23.686
	TWBNS	-3.034	3.749	0.884	-13.604	7.537
	TWBTS	2.968	3.623	0.880	-7.247	13.183

\* The mean difference is significant at the 0.05 level.

Note: TC: Transactional Control; TWBNS: Transactional Withdrawal Breach, No Substitute; TWBTS: Transactional Withdrawal Breach, Transactional Substitute; TWBRB: Transactional Withdrawal Breach, Relational Substitute

**FIGURE 5.3**

**Hypothesis 3a: Subjects' Mean Perceptions of Breach in the Transactional Treatments**



Note: TC: Transactional Control; TWBNS: Transactional Withdrawal Breach, No Substitute; TWBTS: Transactional Withdrawal Breach, Transactional Substitute; TWBRS: Transactional Withdrawal Breach, Relational Substitute

**5.2.3.2 H3b: The effect of congruence within the relational treatments**

Hypothesis 3b states that, within the relational treatments, a congruent substitute of withdrawn resources will result in lower perceptions of breach than an incongruent substitute of resources. Hypothesis 3b was tested using a one-way ANOVA that compared the differences between the means of subjects' perceptions of breach in the relational treatments. Similar to the transactional treatments described above, in all of the relational treatments, the employer's breach involved the withdrawal of relational resources. For purposes of meaningful comparison,

the control treatment (no breach) and the withdrawal treatment (no substitution of resources) were included in the following ANOVA analyses.

Table 5.10 shows the sample size for each treatment, the means of breach perceptions, the standard deviations, and the ANOVA results for the relational treatments. Table 5.11 lists the results of the Scheffe post-hoc analyses. In addition, Figure 5.4 shows a graphical comparison of the means of breach perceptions for the relational treatments.

As hypothesized, the results show that the mean for breach following a congruent substitution ( $M = 14.43$ ,  $SD = 16.51$ ) is lower than the mean for breach following an incongruent substitution ( $M = 29.95$ ,  $SD = 22.81$ ). The results of the ANOVA are significant ( $F = 12.342$ ,  $p = .000$ ) and the post-hoc analyses also indicate that a significant difference exists between the congruent breach substitution (relational substitute) and the incongruent breach substitution (transactional substitute). Hypothesis 3b is therefore supported.

It is interesting to note, however, that within the relational treatments, the withdrawal treatment results in a significantly lower mean perception of breach ( $M = 17.73$ ,  $SD = 16.26$ ) than the incongruent substitute ( $M = 29.95$ ,  $SD = 22.81$ ). This somewhat surprising result will be discussed further in the next chapter.

**TABLE 5.10**

**Summary of Results for Hypothesis 3b: Sample Size, Means, Standard Deviations, and ANOVA Results of Subjects' Perceptions of Breach in the Relational Treatments**

Perceptions of Breach in the Relational Treatments								
Treatment <sup>1</sup>	N*	Mean	SD	SS	d	MS	F	p
Control	49	9.30	9.96					
Withdrawal	67	17.73	16.26					
Congruent	55	14.43	16.51					
Incongruent	42	29.95	22.81					
Total	213	17.34	17.99					
Results of ANOVA				10322.214	3	3440.738	12.342	.000

<sup>1</sup> Note about Treatments: Control: No Breach, No Breach; Withdrawal: Relational Withdrawal Breach, No Substitute; Congruent: Relational Withdrawal Breach, Relational Substitute; Incongruent: Relational Withdrawal Breach, Transactional Substitute

\* Pair-wise deletion

**TABLE 5.11**

**Hypotheses 3b: Results of Scheffe Post-Hoc Analyses for Perceptions of Breach**

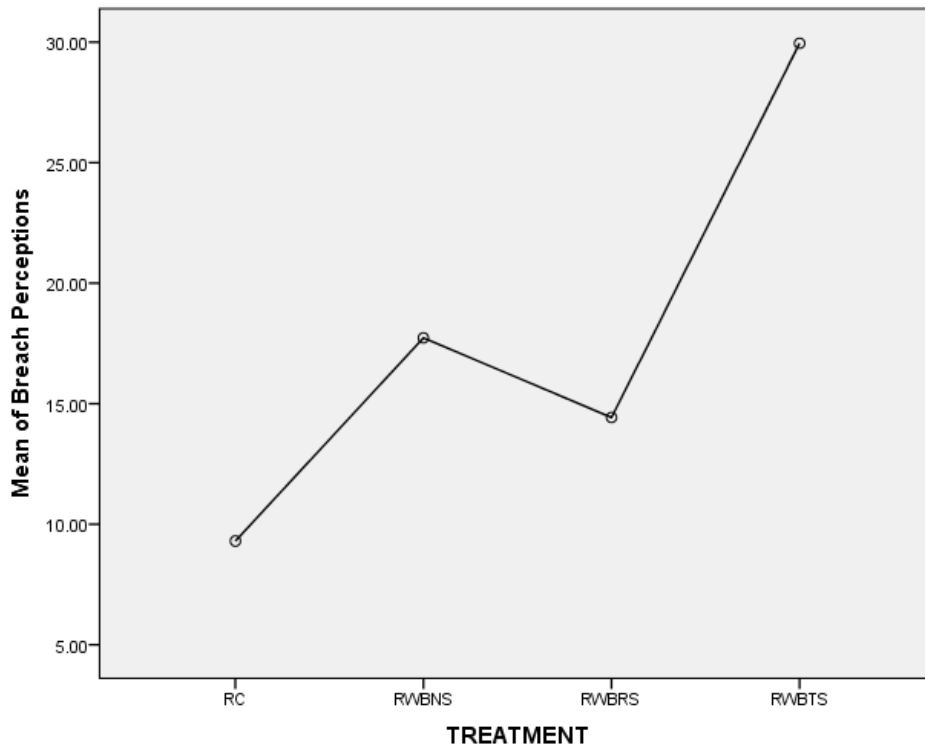
(I) TREATMENT		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
RC	RWBNS	-8.429	3.139	0.069	-17.274	0.417
	RWBRS	-5.128	3.280	0.487	-14.372	4.117
	RWBTS	<b>-20.650*</b>	3.511	0.000	-30.545	-10.754
RWBNS	RC	8.429	3.139	0.069	-0.417	17.274
	RWBRS	3.301	3.038	0.758	-5.261	11.863
	RWBTS	<b>-12.221*</b>	3.286	0.004	-21.483	-2.959
RWBRS	RC	5.128	3.280	0.487	-4.117	14.372
	RWBNS	-3.301	3.038	0.758	-11.863	5.261
	RWBTS	<b>-15.522*</b>	3.421	0.000	-25.165	-5.879
RWBTS	RC	<b>20.650*</b>	3.511	0.000	10.754	30.545
	RWBNS	<b>12.221*</b>	3.286	0.004	2.959	21.483
	RWBRS	<b>15.522*</b>	3.421	0.000	5.879	25.165

\*. The mean difference is significant at the 0.05 level.

Note: RC: Relational Control, RWBNS: Relational Withdrawal Breach, No Substitute, RWBRS: Relational Withdrawal Breach, Relational Substitute, RWBTS: Relational Withdrawal Breach, Transactional Substitute

**FIGURE 5.4**

**Hypothesis 3b: Subjects' Mean Perceptions of Breach in the Relational Treatments**



Note: RC: Relational Control, RWBNS: Relational Withdrawal Breach, No Substitute, RWBRS: Relational Withdrawal Breach, Relational Substitute, RWBTS: Relational Withdrawal Breach, Transactional Substitute

**5.2.4 Hypothesis 4: The Effect of Congruence on Employees' Feelings of Violation**

**5.2.4.1 H4a: The effect of congruence within the transactional treatments**

Hypothesis 4a states that, within the transactional treatments, a congruent substitute of withdrawn resources will result in a lower level of violation than an incongruent substitute of resources. Hypothesis 4a was tested using a one-way ANOVA that compared the differences between the means of subjects' feelings of violation within the transactional treatments. In all of the transactional treatments the employer's breach involved the withdrawal of transactional resources. For purposes of meaningful comparison, the transactional control treatment (no

breach) and the transactional the withdrawal treatment (no substitution of resources) were included in the following analyses.

Table 5.12 shows the sample size for each treatment, the means of violation, the standard deviations, and the ANOVA results for the transactional treatments. Table 5.13 lists the results of the Scheffe post-hoc analyses. In addition, Figure 5.5 shows a graphical comparison of the means of feelings of violation for the relational treatments.

The results of the analyses show that the means for subjects' feelings of violation in the congruent treatment (M = 22.14, SD = 20.49) and the incongruent treatment (M = 22.93, SD = 19.71) are nearly equal. The results of the ANOVA show that no significant differences exist between the transactional treatments (F = .492, p = .688). Hypothesis 4a is therefore not supported.

**TABLE 5.12**  
**Summary of Results for Hypothesis 4a: Sample Size, Means, Standard Deviations, and ANOVA Results of Subjects' Feelings of Violation in the Transactional Treatments**

Feelings of Violation in the Transactional Treatments								
Treatment <sup>1</sup>	N*	Mean	SD	SS	d	MS	F	p
Control	27	18.16	14.86					
Withdrawal	49	24.29	26.11					
Congruent	43	22.14	20.49					
Incongruent	44	22.93	19.71					
Total	163	22.31	21.30					
Results of ANOVA				675.501	3	225.167	.492	.688

<sup>1</sup> Note about Treatments: Control: No Breach, No Breach; Withdrawal: Transactional Withdrawal Breach, No Substitute; Congruent: Transactional Withdrawal Breach, Transactional Substitute; Incongruent: Transactional Withdrawal Breach, Relational Substitute

\* Pair-wise deletion



**TABLE 5.13****Hypotheses 4a: Results of Scheffe Post-Hoc Analyses for Feelings of Violation**

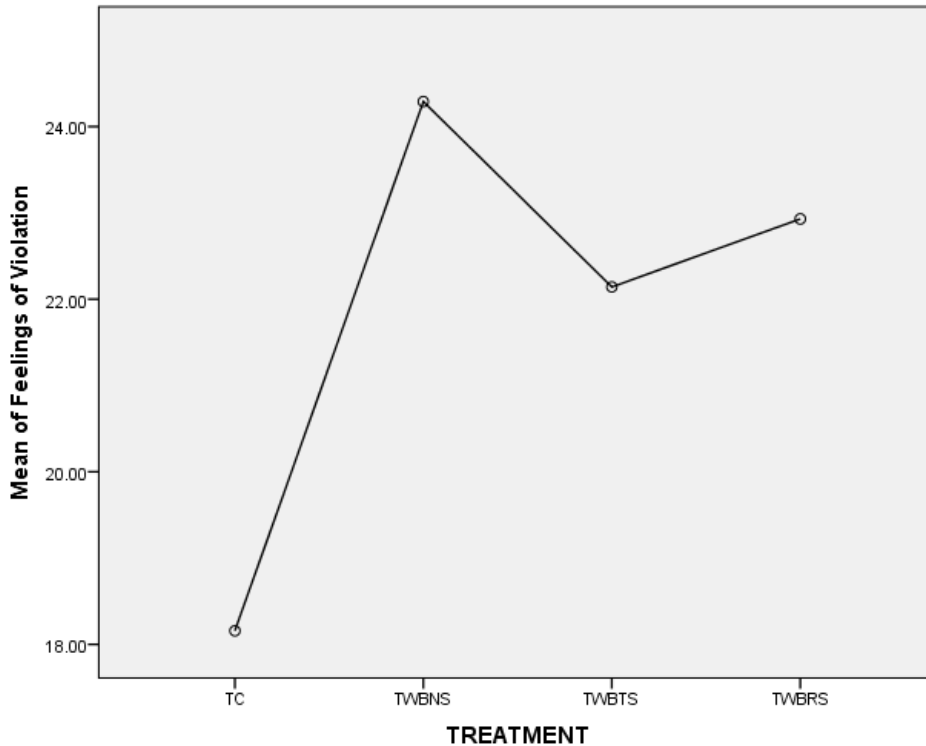
(I) TREATMENT		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
TC	TWBNS	-6.132	5.129	0.699	-20.623	8.360
	TWBTS	-3.984	5.254	0.902	-18.831	10.863
	TWBRS	-4.773	5.231	0.842	-19.554	10.009
TWBNS	TC	6.132	5.129	0.699	-8.360	20.623
	TWBTS	2.148	4.471	0.972	-10.487	14.782
	TWBRS	1.359	4.444	0.993	-11.199	13.917
TWBTS	TC	3.984	5.254	0.902	-10.863	18.831
	TWBNS	-2.148	4.471	0.972	-14.782	10.487
	TWBRS	-0.788	4.589	0.999	-13.754	12.177
TWBRS	TC	4.773	5.231	0.842	-10.009	19.554
	TWBNS	-1.359	4.444	0.993	-13.917	11.199
	TWBTS	0.788	4.589	0.999	-12.177	13.754

\*. The mean difference is significant at the 0.05 level.

Note: TC: Transactional Control; TWBNS: Transactional Withdrawal Breach, No Substitute; TWBTS: Transactional Withdrawal Breach, Transactional Substitute; TWBRS: Transactional Withdrawal Breach, Relational Substitute

**FIGURE 5.5**

**Hypothesis 4a: Means of Feelings of Violation in the Transactional Treatments**



Note: TC: Transactional Control; TWBNS: Transactional Withdrawal Breach, No Substitute; TWBTS: Transactional Withdrawal Breach, Transactional Substitute; TWBRS: Transactional Withdrawal Breach, Relational Substitute

**5.2.4.2 H4b: The effect of congruence within the relational treatments**

Hypothesis 4b states that, within the relational treatments, a congruent substitute of withdrawn resources will result in a lower level of violation than an incongruent substitute. Hypothesis 4b was tested using a one-way ANOVA which compared the means of violation in the relational treatments. For purposes of meaningful comparison, the relational control treatment (no breach) and the relational withdrawal treatment (no substitution of resources) were included in the following ANOVA analyses.

Table 5.14 shows the sample size for each treatment, the means of violation, the standard deviations, and the ANOVA results for the relational treatments. Table 5.15 lists the results of the Scheffe post-hoc analyses. In addition, Figure 5.6 shows a graphical comparison of the means of feelings of violation for the relational treatments.

As hypothesized, the results show that the mean of violation for the congruent breach substitute ( $M = 14.83$ ,  $SD = 19.13$ ) is lower than the mean for the incongruent breach substitute ( $M = 26.16$ ,  $SD = 20.64$ ). In addition, the results of the ANOVA for the relational treatments is significant ( $F = 4.991$ ,  $p = .003$ ). However, the results of the post-hoc analyses indicate that a significant difference exists only between the control treatment and the transactional substitution treatment. A significant difference is not found to exist between the means for the congruent and the incongruent treatments. Thus, Hypothesis 4b is also not supported.

**TABLE 5.14**  
**Results of Hypothesis 4b: Sample Size, Means, Standard Deviations, and ANOVA Results of Subjects' Feelings of Violation in the Relational Treatments**

<b>Feelings of Violation in the Relational Treatments</b>								
<b>Treatment<sup>1</sup></b>	<b>N*</b>	<b>Mean</b>	<b>SD</b>	<b>SS</b>	<b>d</b>	<b>MS</b>	<b>F</b>	<b>p</b>
Control	22	7.50	6.35					
Withdrawal	63	15.35	18.32					
Congruent	30	14.83	19.13					
Incongruent	30	26.16	20.64					
Total	145	16.29	18.52					
<b>Results of ANOVA</b>				4740.386	3	1580.129	4.991	.003

<sup>1</sup> Note about Treatments: Control: No Breach, No Breach; Withdrawal: Relational Withdrawal Breach, No Substitute; Congruent: Relational Withdrawal Breach, Relational Substitute; Incongruent: Relational Withdrawal Breach, Transactional Substitute

\* Pair-wise deletion

**TABLE 5.15**

**Hypothesis 4b: Results of the Scheffe post-hoc Analyses for Feelings of Violation**

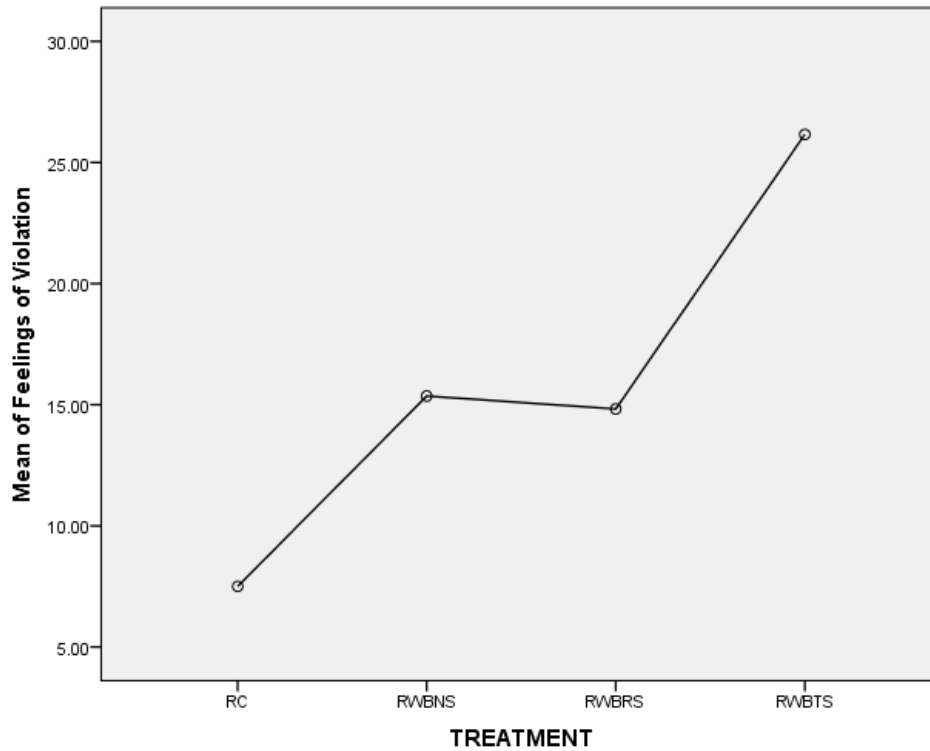
(I) TREATMENT		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
RC	RWBNS	-7.858	4.406	0.368	-20.326	4.609
	RWBRS	-7.325	4.994	0.543	-21.457	6.807
	RWBTS	<b>-18.658*</b>	4.994	0.004	-32.790	-4.527
RWBNS	RC	7.858	4.406	0.368	-4.609	20.326
	RWBRS	0.533	3.947	0.999	-10.634	11.701
	RWBTS	-10.800	3.947	0.062	-21.968	0.368
RWBRS	RC	7.325	4.994	0.543	-6.807	21.457
	RWBNS	-0.533	3.947	0.999	-11.701	10.634
	RWBTS	-11.333	4.594	0.113	-24.333	1.666
RWBTS	RC	<b>18.658*</b>	4.994	0.004	4.527	32.790
	RWBNS	10.800	3.947	0.062	-0.368	21.968
	RWBRS	11.333	4.594	0.113	-1.666	24.333

\*. The mean difference is significant at the 0.05 level.

Note: RC: Relational Control, RWBNS: Relational Withdrawal Breach, No Substitute, RWBRS: Relational Withdrawal Breach, Relational Substitute, RWBTS: Relational Withdrawal Breach, Transactional Substitute

**FIGURE 5.6**

**Hypothesis 4b: Subjects' Means of Violation in the Relational Treatments**



Note: RC: Relational Control, RWBNS: Relational Withdrawal Breach, No Substitute, RWBRS: Relational Withdrawal Breach, Relational Substitute, RWBTS: Relational Withdrawal Breach, Transactional Substitute

**5.3 Comparison of Transactional versus Relational Treatments and Effect Sizes for Exchange Congruence**

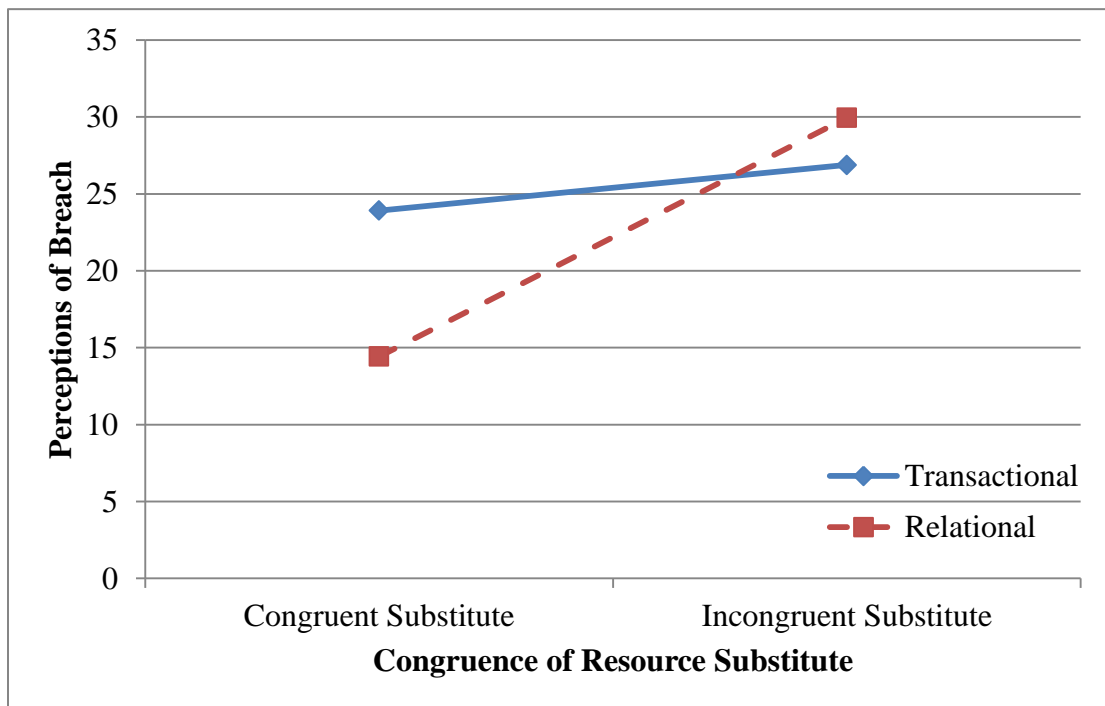
In order to focus in on the effects of exchange congruence and to supplement the data provided earlier, the graphs in this section show a comparison of the post-hoc effects of congruent versus incongruent resource substitutions on the means of perceptions of breach and feelings of violation in both the transactional and relational treatments. In addition, Cohen's *d* was calculated as an effect size for exchange congruence (Cohen, 1988; Rosnow and Rosenthal, 1996). Specifically, Cohen's *d* compared the effect of congruent versus incongruent resource substitutes using pooled variance from each set of treatments (transactional and relational

treatments considered separately). In addition, Cohen’s *d* was calculated for the effects of exchange congruence on perceptions of breach and feelings of violation for all of the substitution treatments (transactional and relational treatments considered together). It should again be noted here that the transactional and relational treatments involved different types of breach. Transactional breach was induced in the transactional treatments and relational breach was induced in the relational treatments. This limits the conclusions that can be drawn from this data.

**5.3.1 Comparison of Mean Perceptions of Breach by Congruence of Substitute**

**FIGURE 5.7**

**Mean Perceptions of Breach by Congruence of Resource Substitute**



Note: Perceptions of breach were measured on a (0 – 100) point Likert scale.

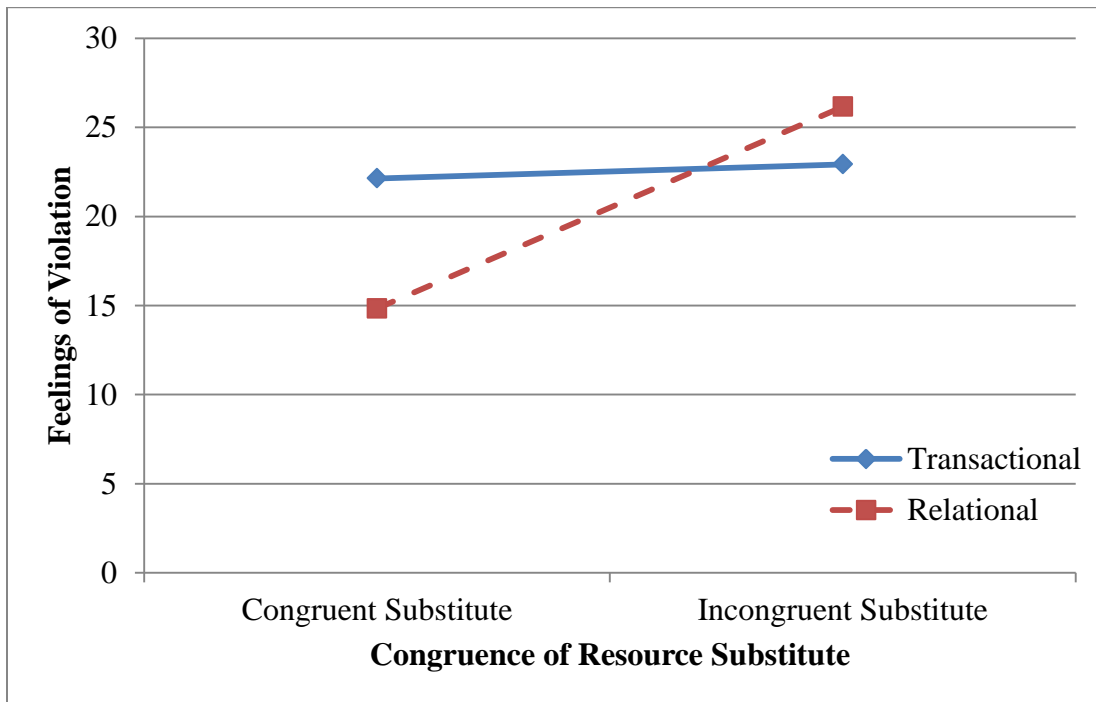
Figure 5.7 shows a comparison of subjects’ perceptions of breach for both the congruent and incongruent resource substitutes that were offered by the employer following breach. Cohen’s *d* for the effects of exchange congruence on perceptions of breach was calculated to be: ( $d = -$

0.15) for the transactional treatments, ( $d = -0.78$ ) for the relational treatments, and ( $d = -0.47$ ) for all substitution breach treatments. Thus, overall, exchange congruence affects perceptions of breach as predicted, and it has a greater effect on perceptions of breach when individual's hold a predominately relational psychological contract than when they hold a transactional psychological contract.

### 5.3.2 Comparison of Mean Feelings of Violation by Congruence of Substitute

**FIGURE 5.8**

**Mean Feelings of Violation by Congruence of Resource Substitute**



Note: Feelings of violation were measured on a (0 – 100) point Likert scale.

Figure 5.8 shows a comparison of subjects' feelings of violation for both the congruent and incongruent resource substitutes that were offered by the employer following breach. Cohen's  $d$  for the effects of exchange congruence on feelings of violation was calculated to be:

( $d = -0.04$ ) for the transactional treatments, ( $d = -0.57$ ) for the relational treatments, and ( $d = -$

0.30) for all substitution breach treatments. Thus, exchange congruence does not have as strong of an effect on feelings of violation as it does on perceptions of breach. However, overall, exchange congruence affects feelings of violation as predicted, and it has a greater effect on feelings of violation when individual's hold a predominately relational psychological contract than when they hold a transactional psychological contract.

#### **5.4 Analyses and Results of Hypotheses 5 – 7**

Hypotheses five through seven consider the relationships between perceptions of breach and several outcome variables, including: task performance, organizational citizenship behaviors, and cyberloafing.

Hypothesis 5 states that a significant negative relationship exists between employees' perceptions of breach and in-role task performance. In this study, task performance was measured with two objective measures of performance as well as a self-report measure. The first objective measure was equal to the total number of words entered for the essay questions which were required of subjects during Phase II of the study. The zero order correlation between this variable (Total Words Entered) and perceptions of breach was found to be negative, but very weak and not significant ( $r = -.039$ , ns). The second objective measure of task performance (Words Entered / Minute), attempted to control for individual differences in typing speed. This measure was calculated by dividing the total number of words entered for the Phase II essays by the total amount of time each individual spent on the essay tasks. The zero-order correlation between this measure and perceptions of breach was also found to be negative, but weak and insignificant ( $r = -.078$ , ns). The third self-report measure of in-role performance, however, was found to be significantly and negatively correlated with breach ( $r = -.284$ ,  $p < .001$ ). In conclusion, hypothesis 5 is partially supported.



Hypothesis 6 states that a negative relationship exists between employees' perceptions of breach and organizational citizenship behaviors. The zero-order correlation between organizational citizenship behaviors and perceptions of breach was found to be negative, but weak and not significant ( $r = -.056$ , ns). Hypothesis 6 was therefore not supported.

Hypothesis 7 states that a significantly positive relationship exists between employees' perceptions of breach and cyberloafing. The zero-order correlation between the two variables was also found to be of a weak magnitude and not significant ( $r = .089$ , ns). Hypothesis 7 was therefore not supported. Interestingly, however, the zero-order correlation between violation and cyberloafing was of a small positive magnitude and significant ( $r = .145$ ,  $p < .05$ ).

Despite the largely weak relationships that were found between employees' perceptions of breach and the study's outcome variables, it is interesting to note the correlations between these same outcome variables and employer's breach. In comparison to perceptions of breach, employer's breach is a dichotomous variable that was dummy coded to differentiate between control treatments in which no breach was induced, and all other treatments in which breach was induced (0 = no breach, 1 = breach). The results in Table 5.2 show that a weak, but significant positive relationship ( $r = .121$ ,  $p < .05$ ) exists between breach and words entered per minute on Phase II essays. However, this is the opposite direction of the relationship which was hypothesized to exist between breach perceptions and task performance. In addition, a weak, but significantly negative relationship is found to exist between employer's breach and OCB ( $r = -.122$ ,  $p < .05$ ). This notable discrepancy in the results between perceptions of breach and employer's breach could suggest several issues, which will be discussed in the following chapter.

## 5.5 Analyses and Results of Hypothesis 8

Hypothesis 8 predicts that employees' perceptions of violation explain the relationship between perceived breach and task performance (both objective and self-reported), organizational citizenship behavior, and self-reported cyberloafing. However, in this study, the weak, non-significant relationships between perceived breach and the outcome variables reduce the need to conduct extensive mediation analyses. Specifically, only the relationship between perceived breach and self-reported task performance was found to be significant ( $r = -.284, p < .001$ ). For this reason, mediational analyses were only used to test for the mediating role of violation in the relationship between breach and self-reported task performance. Prior to carrying out the mediation analysis, the variables were centered, as suggested by Aiken and West (1991) and Holmbeck (2002), in order to reduce the multicollinearity between them.

Baron and Kenny's (1986) four criteria for establishing moderation were then tested for. The first criteria states that in order to test for mediation the independent variable must significantly predict the dependent variable. Self-reported task performance was therefore regressed on breach, and the standardized beta coefficient was significant, indicating that breach significantly predicted self-reported levels of performance ( $\beta = -.249, t(415) = -5.235, p = .000$ ), thereby fulfilling criterion 1.

The second criterion states that the independent variable must predict the mediator. Violation was regressed on perceptions of breach and the standardized beta coefficient was significant ( $\beta = .415, t(308) = 7.982, p = .000$ ), which indicates that perceptions of breach significantly predict violation.

The third criterion states that the mediator must predict the dependent variable. Self-reported levels of task performance was regressed on violation and the standardized beta coefficient was

again significant ( $\beta = -.165$ ,  $t(306) = -2.913$ ,  $p = .004$ ), which indicates that violation significantly predicts self-reported task performance.

The final criterion states that in order to establish full mediation by the mediator, the effect of the independent variable must become non-significant when the mediator variable is taken into account. This criterion was tested using multiple regression analyses in which both perceptions of breach (the independent variable) and feelings of violation (the mediator) were entered into the regression. These regression results were compared to the single regression results for self-reported levels of performance regressed only on perceptions of breach. See Table 5.16. Following these analyses, breach was still a significant predictor of self-reported levels of performance ( $\beta = -.219$ ,  $t(306) = -3.589$ ,  $p = .000$ ), but violation no longer significantly predicted self-reports of performance ( $\beta = -.074$ ,  $t(306) = -1.214$ ,  $p = .226$ ). Violation was therefore not found to be a mediator of the relationship between breach and violation. Thus, Hypothesis 8 was not supported for any of the outcome variables.

**TABLE 5.16**

**Summary of Regression Results Testing for the Mediating Role of Violation**

Dependent Variable: Self-Reported Task Performance							
	Variable	B	(SE)	$\beta$	B	(SE)	$\beta$
	Step 1						
IV	Perceptions of Breach	-.144	.028	-.249**			
	Step 2						
IV	Perceptions of Breach				-.127	.035	-.219**
Mediator	Feelings of Violation				-.041	.033	-.074
	F	20.190**			10.848**		
	R	0.249**			.258**		
	R <sup>2</sup>	0.062**			0.067**		
	Adjusted R <sup>2</sup>	0.059**			0.060**		
	$\Delta R^2$				.005		
	$\Delta F^2$				1.474		
	N	419			309		
	** Significant at p < .01						

**TABLE 5.17**  
**Summary of Results**

<b>H1</b>	<b>Employer’s withdrawal breach and employer’s substitution breach (e.g. when withdrawn resources are substituted with others) will affect employees’ perceptions of breach to the extent that:</b>	
H1a	Both conditions of withdrawal breach and substitution breach will result in higher levels of perceptions of breach than conditions in which no breach has occurred (the control condition).	Supported
H1b	Conditions of substitution breach will result in lower levels of perceptions of breach than conditions of withdrawal breach.	Not supported
<b>H2</b>	<b>An employer’s withdrawal breach and substitution breach (e.g. when withdrawn resources are substituted with others) will affect an employee’s feelings of violation to the extent that:</b>	
H2a	Both withdrawal breach and substitution breach will result in higher levels of violation than conditions in which no breach has occurred.	Not supported
H2b	Substitution breach will result in lower levels of violation than withdrawal breach.	Not supported
<b>H3</b>	<b>When an employer breaches a psychological contract and provides a substitution of resources that is congruent with the nature of the underlying contract, employees’ perceptions of that breach will differ such that:</b>	
H3a	Employees with a predominately transactional psychological contract will experience lower perceptions of breach when transactional resources are substituted for transactional resources withdrawn than when relational resources are used as a substitute.	Not supported
H3b	Employees with a predominately relational psychological contract will experience lower perceptions of breach when relational resources are substituted for relational resources withdrawn than when transactional resources are used as a substitute.	Supported

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<b>H4</b>	<b>When an employer breaches a psychological contract and provides a substitution of resources that is congruent with the nature of the underlying contract, employees feelings of violation will be affected to the extent that:</b>	
H4a	Employees with a predominately transactional psychological contract will report lower levels of violation when transactional resources are substituted for transactional resources withdrawn than when relational resources are used as a substitute.	Not supported
H4b	Employees with a predominately relational psychological contract will report lower levels of violation when relational resources are substituted for relational resources withdrawn than when transactional resources are used as a substitute.	Not supported
<hr/>		
H5	A negative relationship exists between employees' perceptions of psychological contract breach (via withdrawal and substitution) and their in-role task performance.	Partially supported
<hr/>		
H6	A negative relationship exists between employees' perceptions of psychological contract breach (via withdrawal and substitution) and their organizational citizenship behaviors.	Not supported
<hr/>		
H7	A positive relationship exists between employees' perceptions of psychological contract breach (via withdrawal and substitution) and their frequency of cyberloafing.	Not supported
<hr/>		
H8	Employees' feelings of violation will mediate the relationships between perceived breach (via withdrawal and substitution) and the outcomes of in-role performance, OCB, and cyberloafing.	Not supported

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## **CHAPTER VI: Discussion**

The majority of studies within the existing psychological contract literature focus on either contract content or contract breach (Conway and Briner, 2005). The goal of this dissertation was to add to the existing of body knowledge in both topic areas while incorporating an experimental study design into this literature. Specifically, the researcher wanted to explore the effects of exchange congruence – or a match between the nature of one’s underlying contract and the type of breach that one experiences – on subjects’ perceptions of breach, feelings of violation, and performance outcomes. The following sections discuss the major findings, contributions, and limitations of this study.

### **6.1 Study Objectives and Findings**

A first objective of this study was to compare the impact of employer’s withdrawal breach and employer’s substitution breach on subjects’ perceptions of breach and feelings of violation. For this reason, all types of substitutions were compared to all types of withdrawal breach, regardless of whether they were congruent or incongruent, transactional or relational.

As expected, both withdrawal breach and substitution breach resulted in higher levels of breach perceptions and feelings of violation than the control treatment, in which breach was not induced. However, the effects of employer’s withdrawal breach and employer’s substitution breach on both perceptions of breach and feelings of violation were contrary to the differences hypothesized. Both withdrawal and substitution breach had approximately the same magnitude of effects on these two outcome variables. Though not significant, the substitution breach resulted in slightly higher levels of perceived breach and violation than the withdrawal breach. This is surprising, as it was expected – based on social exchange theory and the norm of

reciprocity (Blau, 1964; Gouldner, 1960) – that substitution breach would result in lower levels of perceived breach and violation. These results suggest that offering a substitution for a withdrawn resource might actually make the breach more salient and meaningful to the employee.

The salience of a breach is affected by several factors including the size of the discrepancy, the importance of the promise to the employee, and the extent to which the promise is vivid in the employee's mind because it was either very explicit or recently made (Morrison and Robinson, 1997). To elaborate, by actively offering a substitution in place of what was originally promised, the employer is not only reminding the employee of the original promise, but openly acknowledging that a breach has occurred and that it is meaningful enough to warrant a resource substitution. Studies of substitution breach might consider the role that social accounts or verbal explanations can play when explaining breach and administering substitutes. In this study, all breaches were acknowledged (e.g. when subjects had to perform twice as many tasks) and all substitutes were explained only as a way to “make up for” the breach. Future research, then, might explore the causal impact of justifications or excuses on perceptions of breach and feelings of violation.

A second objective of this study was to examine the impact of congruence (a match between the nature of one's underlying contract and the type of breach that one experiences) on employees' perceptions of breach and feelings of violation. Within the transactional treatments, congruence between the substitution resources (the shorter tasks) and the underlying transactional psychological contract did not result in significantly lower levels of breach perceptions or feelings of violation in comparison to the incongruent substitutes. Also, no significant differences were found to exist between either of the substitutions (shorter tasks in the



transactional substitution / easier tasks in the relational substitution) or the withdrawal treatment (offering fewer points per task without offering a substitute).

As hypothesized, however, within the relational treatments, congruence between the substitution and the underlying relational contract did result in significantly lower levels of perceived breach than the incongruent substitution. Also, although there was a large difference in the means of feelings of violation for the congruent ( $M_{\text{congruent}} = 14.83$ ,  $SD = 19.13$ ) versus the incongruent treatments ( $M_{\text{incongruent}} = 26.16$ ,  $SD = 20.64$ ), the difference was not significant.

The impact that congruence had in the relational treatments in comparison to the transactional treatments is notable. The results of this study tend to support past work that argues that employees who hold relational psychological contracts will generally be more sensitive to contract breach than those holding transactional contracts (e.g. Morrison and Robinson, 1997; Robinson, et al., 1994). Recall that substitution remedies can change the meaning or the nature of a relationship (Rousseau, 1995). For this reason, those holding primarily relational contracts may interpret a transactional substitute as an indication that the psychological contract is becoming less relational and more transactional in nature. In this sense, the symbolic value of the substituted resource may be negatively interpreted if it implies that what was thought to be an informal and implicit agreement is actually more formal and explicit and can simply be “paid off”. This can be threatening to an employee who has been used to providing more relational resources (e.g. unpaid overtime) to the employer and receiving the same types of resources in return (e.g. the most rewarding projects).

Interestingly, within the relational treatments, transactional substitution had an even greater negative effect on perceptions of breach and violation than the outright withdrawal of relational resources after which no substitute was offered. This was not the case for the transactional

treatments in which the withdrawal treatment resulted in higher levels of perceived breach and violation than in either of the substitution treatments (relational or transactional). When a relational contract exists, then, it is possible that an incongruent substitute creates a discrepancy between what is received and what is expected – both in terms of the nature of the resources and the terms of the agreement – that leads to greater feelings of breach and violation than if the employer had simply reneged on the original promises. The symbolic nature of the substituted resource could then be interpreted by an employee holding a relational contract to be insulting or inappropriate when a transactional substitute is offered. As mentioned before, an incongruent substitution may also create the impression that the nature of the psychological contract is changing, which is not necessarily implied when resources are simply withdrawn.

The symbolic nature of a substitution may also have implications for those employees holding transactional contracts. They may not be as ambivalent to the type of substitution as the results suggest. Those holding a predominately transactional contract may feel that a relational substitute signals that the relationship is changing in a positive way that makes up for the breach. For example, a relational substitute in a transactional contract can suggest to employees that future exchanges may also be more implicit and informal, suggesting that a certain level of trust and rapport has been established with the employee. Future research will need to explore this issue in the context of changing psychological contracts.

A third objective of this study was to examine more closely the effects that perceived breach has on employee performance outcomes and the mediating role that violation plays in the relationship between perceived breach and these outcomes. The outcomes examined in this study included task performance (two objective measures and one self-report measure), organizational citizenship behavior (one objective measure), and cyberloafing (one self-report measure). A

significant relationship was found, however, to only exist between perceived breach and self-reported levels of task performance. Also, violation was not found to be a significant mediator in this relationship. This may have been the case because the employer breach manipulations were not strong enough. Although significantly different levels of perceptions of breach were found to exist between the study treatments, none of the means for perceived breach exceeded 30.00 on a scale of 1 to 100. Future experiments need to use stronger breach manipulations if they are to be salient enough to affect perceptions of breach, feelings of violation, and performance outcomes in a more meaningful way. Based on insights gained during this study, suggestions for future researchers regarding the breach manipulations will be explained in detail in the *Limitations* section below.

A final and important objective of this study was to develop and test the use of an experimental design and procedures in the study of the psychological contract, which to the researcher's knowledge, had not been used before in this literature. Overall, the results of this study support the use of experimental designs when studying the psychological contract. Using the experimental procedures employed in this study, the researcher was able to successfully induce the development of transactional and relational psychological contracts as well as employer's contract breach in a laboratory setting.

Though the results gained in this single study are restricted by the weak breach manipulations discussed earlier, they still demonstrate that experiments in this area can allow researchers to more closely examine the psychological contract in ways that would not be possible with field studies. In doing so, this design allows researchers to move beyond the methodological boundaries that have led to much critique of the psychological contract in recent years (Taylor

and Tekleab, 2004; Conway and Briner, 2009). There are several advantages that this particular experimental design has over field and survey designs.

First, this experimental design made it possible for the researcher to examine different forms of breach in combination with different underlying contracts in ways that would not be ethical or feasible in a field study. Future research in this area should also take advantage of the versatility that an experimental design offers and strive to study similar contexts and breach situations that field studies cannot provide. Many different aspects of transactional and relational breach have yet to be studied or defined. For example, it would be interesting to compare employees' reactions to a transactional breach of time in comparison to a breach of money. Again, this is a comparison that would most likely only be feasible in an experimental setting.

Second, by requiring subjects to complete a series of tasks in exchange for a certain amount of compensation (class credit points), the design allowed an exchange process to ensue between the employer and employee. The repeated exchanges were either based on explicit agreements in the transactional treatments or implicit agreements in the relational treatments, which allowed the subjects to develop contracts of either a more transactional or relational nature. In comparison, most studies in this literature rely on cross-sectional data that assumes that these exchange processes occur in the field. By showing that this exchange process can be reproduced in the laboratory, researchers can confirm and explore the unfolding exchange processes that lead to the creation of psychological contracts (Conway and Briner, 2009). Though the focus here was on the creation of contracts through repeated exchanges, future studies can also use experiments such as this to explore whether other variables of interest (e.g. agents of exchange, antecedents to initial exchanges, changes in the terms of the exchange agreement) have an impact on the exchange process and the development of psychological contracts.

Third, the design of this experimental study allows researchers to explore the effects of time on the relationship between actual employer's breach and perceptions of breach rather than depending on recollections of breach at often random points in time in the employment relationship (as is commonly the case in field studies). By examining perceived breach immediately following employer's breach in this study, the researcher did not have to rely on employees' delayed retrospective responses, which can confound data and threaten reliability and validity (Conway and Briner, 2009). However, greater time lapses can easily be induced (e.g. having subjects return at a later time to continue working) and compared for effects in an experiment.

Fourth, the study of causal relationships between variables is made possible with an experimental design. Despite the limited findings that resulted from weak breach manipulations in this study, the design allowed the temporal ordering of stimuli as well as comparisons between different treatments. For example, in this study, the psychological contracts were developed with employees before the employer breaches were induced and the breach substitutions were offered following the induction of the breaches. In addition, comparisons of both transactional and relational treatments and different types of breach within each of these treatment groups were examined. Future research can take advantage of temporal ordering and treatment comparisons to study causal relationships in a manner that is rarely possible with the cross-sectional study designs often used in this literature.

Fifth, the experimental setting allowed the researcher to use objective measures of individual behavior. Such data (e.g. absenteeism) is often difficult to obtain in field settings. As a result, researchers are often forced to rely on employees' self-report measures of performance. In this study, task performance and organizational citizenship behavior were both objectively measured

and assessed in response to how these were actually demonstrated by the subjects both in the absence and presence of contract breach. For example, OCB was measured by assessing whether or not individual subjects took part in a final voluntary survey at the end of the two-hour study session.

In a similar vein, manipulations used in conjunction with objective measures made it possible to assess behaviors in response to explicit versus implicit exchange stimuli. Relational psychological contracts involve implicit beliefs, which may be unconsciously formulated by individuals (Levinson, Price, Munden, and Solley, 1962). Surveys, however, can often only capture respondents' consciously accessible perceptions and attitudes, and as a result may not be measuring implicit aspects of the psychological contract, but only explicit beliefs (Conway and Briner, 2009). The use of precise manipulations can help researchers to better understand both the nature and the magnitude of the effects of implicit versus explicit components of psychological contracts.

Finally, an experimental design allows for an examination of relationships between variables in ways that would typically be confounded in natural settings. In this study, a working relationship was emulated in which employees worked for an employer with which they had had no prior relationship. This is important, especially when studying the effects of breach, as an employee's perception of past promises made by the employer play an important role in their determination of contract breach (Morrison and Robinson, 1997). In this sense, an experimental design allows subjects to form attitudes and carry out behaviors in a setting that is only affected by the study manipulations and not by prior exchanges with the employer or breaches committed by the employer. This feature of experiments also offers many opportunities for researchers

interested in better understanding the impact of organizational socialization on the development of employees' initial psychological contracts.

In sum, an experiential methodology addresses many of the methodological shortcomings that have been associated with this literature. It also offers researchers a new way of studying the psychological contract that could expand our knowledge of this construct in ways that were not possible using field studies and survey questionnaires. For these reasons, the researcher considers this initial use of an experimental design within this literature to be an important methodological contribution that could lead to new insights into the psychological contract and its impact on employee behavior.

## **6.2 Theoretical and Managerial Contributions**

Previous studies in this literature have sought to better understand the effects that an employee's underlying psychological contract has on perceived breach and violation. The strongest debate concerns the role of relational contracts. Some researchers have argued that the higher levels of trust and the implicit agreements that are inherent in relational contracts will cause employees to be more forgiving and understanding of an employer's breach (e.g. Dulac, et al., 2008). Others have found that high levels of relational expectations – including long-term commitment and trust – actually cause employees with relational contracts to be more sensitive to breach and more disappointed when it occurs (e.g. Robinson, et al., 1994; Grimmer and Oddy, 2007). Given the inconclusive results presented in the literature, this study explored the role of exchange congruence – or the match between one's contract and the type of breach that one experiences. The impetus for studying exchange congruence was based in the idea that employees do not perceive higher or lower levels of breach and violation primarily as a function of their existing contracts, but also based on the type of breach that an employee holding a

particular contract experiences. For example, it was expected that those with predominately relational contracts would be more affected by relational breaches than transactional ones. By examining the effects of both employer's withdrawal and substitution breach within transactional versus relational experimental contexts, the researcher found support for this idea. Specifically, the means for perceptions of breach and violation showed that subjects in transactional treatments were more sensitive to withdrawal breach, but equally sensitive to transactional and relational breach substitutes, though no significant differences in perceived breach or violation were found to exist between the three types of breach. In comparison, subjects in relational treatments were less sensitive to withdrawal breach than to both types of substitution breach, with transactional substitutions resulting in significantly higher levels of perceived breach and violation than relational substitutes. These results clearly indicate that employees do not react equally to breach and suggest that both the type of breach and the nature of the employee's contract have an impact on perceived breach and violation. By looking at these variables in combination, this study was able to contribute new insights to the literature on psychological contract breach and, in particular, to the debate on the effects of relational contracts. While the results support those of previous researchers who argued that employees with relational contracts are more sensitive to contract breach (e.g. Robinson, et al., 1994; Grimmer and Oddy, 2007), this study finds that it is also the type of breach that a relational employee experiences that matters.

The findings of this study have important implications for managers who either must personally breach agreements with employees or respond to breaches that were caused by other agents of the organization. As this study shows, it is important that the underlying contract of employees is first known and understood. Then, if resource substitutions of equivalent magnitude are available, the manager should consider the nature of the resource to be offered. The results of



this study suggest that employees with more relational contracts who have experienced relational breach should be offered substitutes of a relational nature. For example, an employee who has been denied participation in a managerial developmental workshop may find little comfort in receiving the amount of money that the employer would have otherwise spent on that workshop. This workshop may mean more to the employee than the amount that was being invested, but it may also signal to the employee that the employer believes in his or her managerial potential. By offering a transactional substitute (the money that would have been spent on the workshop), the relational employee may interpret a loss of the relational elements of the contract and react more negatively than if no substitute had been offered. On the other hand, the results suggest that employees holding transactional contracts are more open to exchange substitutes regardless of their nature.

This study, however, was only an initial examination of the effects of exchange congruence. Because the breach manipulations used in this study were weak, researchers of future studies should seek to replicate and add to these results using stronger forms of psychological contract breach. In particular, they should seek to explore the impact that exchange congruence has on organizationally relevant outcomes, including task performance, organizational citizenship behavior, and cyberloafing.

### **6.3 Limitations**

Several limitations of this study should be noted by future researchers of the psychological contract.

### ***6.3.1 Limitations of the Experimental Manipulations***

An important limitation of this experiment was the weak breach manipulations, which may have resulted in low levels of perceived breach and violation, limiting the findings of this study. Psychological contract studies generally suffer from average to low levels of perceived breach (Zhao, et al., 2007), but it was expected that this experimental design would make breach more salient, thereby intensifying perceived levels of breach and violation. This was not the case. Based on the researcher's experience, however, several actions can be taken to induce higher levels of breach and violation in future experimental studies.

First, it is important that the form of compensation that is offered in the employer-employee exchange be divided into incremental exchanges that are quantitatively meaningful and valuable to the subjects. In turn, the employer's breaches, which make the compensation more difficult to earn, may result in stronger perceptions of contract breach. For example, in this study, the researcher divided two course credit points into smaller increments. As a result, by offering only "0.20 points per task" during Phase I and "0.10 points per task" during Phase II, the actual value of the points may have seemed rather insignificant to subjects in relation to their overall course grade. This is not surprising given that individuals take both the magnitude of a contract breach and its implications into account when forming evaluations of contract breach (Morrison and Robinson, 1997). A feasible solution for future researchers using a student sample would be to offer more points or "extra credit points".

Along the same lines, additional and immediate forms of compensation can also raise the salience of what is being offered. In turn, the breach effects could be more acute when the compensation becomes more difficult to earn. For example, offering each subject up to \$5 (in the transactional treatments) or a small gift (in the relational treatments), which is dependent on his

or her task performance, could supplement the level of compensation for study participation. This, of course, also has implications for the tasks upon which the performance measure is based. However, two different types of compensation allow the researcher to appeal to more subjects, including those who might have a strong grade in the course and therefore do not value the credit points.

These additional performance incentives could also be coupled with more effective operationalizations of breach. The researcher of this study resisted using a transactional breach induction that involved lowering the total number of study participation points originally promised. This was not done to prevent high levels of attrition from Phase II of the study. However, future studies should pilot this and other more abrasive forms of transactional breach (e.g. less time for tasks). In the case of relational breach, other forms of breach could involve creating information dependencies on the representative who then refuses to help subjects or leaves the room during Phase II.

On another note, the salience of either type of breach may also increase if only half of the subjects within a Phase II treatment group are subjected to the breach. By inducing breach in this manner, subjects would engage in equity comparisons with referent others – in this case, other subjects in the group whose agreements were not breached – thereby making the breach much more salient to those who experience it (Morrison and Robinson, 1997). Such a design would also allow for the study of fairness effects at the same time.

Finally, in the case of substitution breach, another consideration that may impact the salience of breach is the duration of time that elapses between the employer's breach and the employer's resource substitution. In all of the substitution treatments in this study, the breach was explained directly before the substitution resource was offered as a repair. This may have resulted in a

“cancelling” of the intended breach effects. The breach may have been more effective if the researcher had announced it at the end of Phase I (before subjects took their breaks) rather than at the beginning of Phase II. This would have given subjects time to process, cognitively assess, and recognize the fact that a breach had occurred.

### **6.3.2 Measurement Limitations**

In addition to the experimental manipulations that may have limited the results of this study, several measurement issues should also be improved upon in future studies.

First, the global measure of breach that was used to measure subjects’ perceptions of breach following the breach manipulations proved problematic. The measure’s inability to capture perceived breach was evident from the differences in the correlations between *employer’s breach* (dummy coded for whether breach occurred or not) and the outcome variables and *perceptions of breach* and the outcome variables. Employer’s breach, which was a dummy coded variable, was found to have more significant relationships with the outcome variables than perceived breach (see Table 5.2). This means that the actual breach inductions were having effects on the outcome variables, but that the breach inductions were not necessarily being captured as “broken promises” by the global breach measure. Because this measure, developed by Robinson and Morrison (2000), repeatedly refers to “promises kept” or “promises broken”, future studies should explore how both explicit (in the case of transactional contracts) and implicit (in the case of relational contracts) promises can be better established within an experimental design.

As an alternative solution to this measurement problem, a more specific measure of perceived breach could be used that focuses on each of the individual promises (either explicit or implicit) that are specific to the study and its manipulations. For example, in this study, questions addressing the withdrawal of Internet assistance or the decrease in the number of points offered

per task in Phase II could also have been used to measure breach. Such measures are known as “composite measures” of breach (Conway and Briner, 2005; Zhao, et al., 2007). This type of measure (e.g. Kickul, Lester & Finkl, 2002) asks participants to assess a list of specific resources that they believe the organization has promised to provide rather than considering all promises on a global scale.

Secondly, because the breach manipulations in this study are contingent upon the creation of either a predominantly transactional or predominantly relational psychological contract, the low Cronbach’s reliability coefficient of ( $\alpha = .60$ ) is of concern to the researcher. Like this study, many other studies have also reported similarly low reliabilities of transactional psychological contract measures ( $\alpha = .75, .69, .45$  over three data collection periods, Tekleab, 2003;  $\alpha = .63$ , Hui et al., 2004;  $\alpha = .62$ , Grimmer and Oddy, 2007;  $\alpha = .64$ , Cohen, 2012). In comparison, as was demonstrated in this study ( $\alpha = .80$ ), relational psychological contract measures consistently show higher levels of reliability than transactional measures ( $\alpha = .91, .88, .91$  over three data collection periods, Tekleab, 2003;  $\alpha = .85$ , Hui et al., 2004;  $\alpha = .65$ , Grimmer and Oddy, 2007;  $\alpha = .79$ , Cohen, 2012). Also, as was demonstrated in this study, the relational measure correlates highly with other measures of relational social exchange, including: leader member exchange ( $r = .62$ ), perceived organizational support ( $r = .67$ ) and trust in the organization ( $r = .71$ ). In comparison, the relational measure of psychological contracts correlates negatively with the transactional measure ( $r = -.33$ ).

The prevalence of such low reliabilities points to a possible weakness in the psychological contract theory and leads one to question how the results of the transactional measure should be interpreted in combination with the results of the relational measure. Conceptually, while it is easy to understand the high versus low distinction between transactional and relational elements,

it is not easy to conceptualize a psychological contract that is, for example, both highly relational and highly transactional. As a result, one suggested solution is that the transactional versus relational distinction, which is argued by many psychological contract researchers to exist on a two dimensional (relational and transactional) continuum (e.g. Millward and Herriot, 2000; Robinson, Kraatz, and Rousseau, 1994), is more theoretically sound when interpreted as a one-dimensional construct. A different suggestion is that future studies only consider the distinction between low and high levels of relational psychological contracts, which have been the focus of debate in the breach to violation to outcomes chain anyway (e.g. Grimmer and Oddy, 2007; Dulac, et al., 2008). This, however, leads one to question what additional information the transactional measure is capturing. If researchers do choose to maintain the two-dimensional nature of the psychological contract, then the existing conceptualization and theory of psychological contracts needs to be fully consistent with a two-dimensional measure. For example, by maintaining a two-dimensional construct, the current psychological contract measures allow for both high and low levels of contract defining elements (e.g. a contract can be assessed as both long term and short term using the current measures).

An additional remedy for this issue would be a new set of contract measures, which specifically measure for the five dimensions that differentiate transactional from relational contracts: the focus of the contract, time frame, stability, scope, and tangibility (Rousseau and McLean Parks, 1993). By defining psychological contracts over these five dimensions, the transactional versus relational nature of contracts could be more accurately and sensibly assessed. It is also very likely that this could lead researchers to expand the conceptual differentiation of psychological contracts beyond the transactional / relational distinction. Within

the literature, and in this study, this often results in a “forcing” of contracts into one category or the other – even if varying elements of both types of contract are present.

Third, as is evident from the large standard deviations found in conjunction with the measures of the outcome variables, future experimental studies need to better control for individual differences. Using this study design, performance controls could easily be incorporated into the Phase I tasks. For example, during Phase I, subjects’ accuracy on knowledge tasks or the number of words entered per minute in essay tasks should be measured. Following the breach in Phase II, the same types of tasks could be administered and the discrepancies to the Phase I measures recorded. By comparing individual performance levels between phases, variance that is due to individual performance differences between subjects can be minimized.

In a similar vein, researchers of future experimental studies should consider controlling for subjects’ general expectations regarding their participation in the study. Questions about the amount of time they expect to spend, the level of effort they expect to put forth, and the type of treatment they expect to receive from the Campus Solutions representative would allow the researcher to control for the impact that these general expectations have on later perceptions of breach and violation. For example, subjects who are expecting to have fun during the study or to expend very little mental energy on the study tasks are likely to report higher levels of breach and violation than those who are prepared to work more seriously and concentrate on performing the tasks to the best of their ability. This information could be used to control for effects in the dependent variables that are simply due to subjects’ disappointment or annoyance with the study and not due to the experimental manipulations.

Controlling for subjects' general expectations could also help reduce error that leads to unintended main effects of the transactional and relational treatments. In this study, main effects were found to exist for the variables of breach, violation, and cyberloafing when only the transactional and relational control treatments were compared. Levels of breach and violation were significantly higher in the transactional control group than in the relational control group, while frequency of cyberloafing was significantly higher in the relational control group than in the transactional control group. This error can lead to a skewing of all of the results based on the transactional or relational nature of the treatments. This prevents the researcher from attributing the mean differences solely to the breach manipulations and substitutions, which was a main objective of this study.

In addition, the 100 point Likert scales used in conjunction with survey-based sliding rulers may have also added error to the measures, which were originally measured on five or seven anchor scales. This method of data collection proved to be the most effective in achieving a high number of responses during the pilot studies, but it is also a method that allows subjects to answer questions relatively quickly. The speed that this data collection method offers may be preventing subjects from spending the adequate time needed to read the questions and to actively think about and choose their answers. In addition, though five answer choice anchors (e.g. 1) strongly disagree, 2) disagree, 3) neither agree nor disagree, 4) agree, 5) strongly agree) were provided for the majority of measures used in this study, they were not placed in conjunction with a specific number on the scale. For example, the option "neither agree nor disagree" was placed at the 50 / 100 mark, but there was no anchor placed between 30 and 50 or 50 and 70 on the scale. As a result, additional measurement error could have resulted from the different interpretations that subjects had of the 1 – 100 point scale. For this reason, researchers of future



studies should avoid using this type of scale and make an effort to maintain the original answer anchors and scales. This makes the data easier to interpret and allows objective comparisons with other studies which used the original measurement scales.

Lastly, because an experimental setting offers the opportunity to collect objective outcome measures, future researchers should consider more effective measures of task performance, OCB, and cyberloafing than those used in this study. For example, work tasks that require accuracy may be better indicators of task performance than essay tasks, which by nature do not require a certain level of performance in order to be correct. Also, a more objective measure of cyberloafing could be achieved with Google Analytics or Internet tracking software, which allows researchers to differentiate between the types of sites accessed (e.g. social networking sites) and the duration of time spent on each site. Although these tools were originally intended for use in this study, the study design, which allowed for the use of the Internet in all treatments, prevented their use in this study. Finally, additional measures of task performance and deviance might also be explored in the future (e.g. quality of work, attrition from study after breach, cheating, etc.).

#### **6.4 Conclusion**

The psychological contract has been a popular topic in managerial research since Rousseau's work (1989; 1995) led to its widespread study about twenty years ago. In recent years, however, the research being carried out in this area has been under strong critique. This is mainly due to several shortcomings that result from the use of methodologies – mainly field studies and survey questionnaires – that are inadequate when examining certain aspects of this construct. One particular issue that has suffered from inconclusive results is the effect that one's underlying contract (either transactional or relational) has on perceptions of contract breach and feelings of

violation. This study sought to gain insight into this question by using an experimental study design to assess the impact that exchange congruence – or the match between the nature of the underlying contract and the nature of the breach – has on employees’ perceptions of breach and feelings of violation. The results of this study indicated that breach perceptions and feelings of violation vary for employees depending not only on the type of contract they hold, but the type of breach that they experience. In addition, the study demonstrated that an experimental design is not only appropriate for this literature, but that it could also advance our understanding of the psychological contract in ways that are not possible with field studies. However, this particular study suffered from weak breach manipulations that limited the results. Future researchers can use the suggestions made here to carry out similar experimental studies with stronger manipulations. The success of future studies like this would continue to shed light on the phenomenon surrounding the role of one’s psychological contract in the breach to violation to outcomes chain. Additional experimental studies would also promote the use of this design in the study of the psychological contract, which would help to push this area of research out of its current “methodological rut” (Conway and Briner, 2005, pg. 89).

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## **APPENDICES**

### **APPENDIX A: Pilot Study**

Because an experimental design is not traditionally used in studies of the psychological contract, a pilot study was proposed and approved to pre-test several aspects of the original proposal. Specifically, the researcher examined: 1) Procedures used to manipulate transactional versus relational exchange relationships in a laboratory setting, 2) the most effective methods for inducing these different exchange contexts, 3) the impact of the context manipulations on the proposed measures, 4) the appropriateness and difficulty of the work tasks designed for the study, and 5) the amount of time that would be needed to induce the manipulations. In total, 223 subjects took part in the pilot study. The pilot study subjects were recruited from fifteen separate summer session business courses. The demographic make-up of the pilot sample (year in college and gender) did not significantly differ from the sample recruited for the primary study.

#### **Results of the pilot study**

Several experimental trials were run before the researcher found the most effective methods for inducing work contexts that were either transactional or relational in nature. In the first half of the pilot study, no evidence of differences between the transactional and relational contexts was detected in any of the measures. See Table 8.1 below.

**Table 8.1**  
**Pilot Study - Summary of Results for First Group of Study Trials**

<b>Measure</b>	<b>N<sup>1</sup></b>	<b>Mean</b>	<b>SD</b>	<b>N<sup>1</sup></b>	<b>Mean</b>	<b>SD</b>	<b>Sig. (Two-Tailed)</b>
Affect	58	64.36	24.01	60	61.85	24.85	0.578
PC- Relational	59	58.95	17.82	63	59.90	16.40	0.762
PC - Transactional	58	28.60	17.71	62	30.53	22.91	0.609
Trust	59	79.20	16.61	63	78.10	16.72	0.714

<sup>1</sup> Case-wise deletion

\*p > .05

Note: PC = psychological contract

Following these first pilot trials, changes in procedures were made that proved successful. In turn, a list of specific procedures for effectively inducing the transactional and relational attitudes between the treatment groups was developed and implemented during the second phase of pilot trials. This list of procedures, which was also used in the main study, is shown in Table 8.2 below.

**TABLE 8.2**

**Procedures used in the Transactional versus Relational Context Manipulation**

Transactional Contract Treatment	Relational Contract Treatment	Theoretical Justification
<b>Terms of Agreement</b>		
<p>The agreement between the subjects and the organization is extrinsic: The subjects are told that they can earn 0.2 points per task they complete during Phase I. Successful completion of a task is defined as answering at least half of the task questions correctly.</p>	<p>The agreement between the subjects and the organization is intrinsic: The subjects are told that they will earn a maximum of 1 point for their participation in Phase I of the study. They are told that they must reach a minimum level of performance, but they are not given any further details.</p>	<p>Transactional psychological contracts are defined as promises of exchange in which the terms are specific, explicit, and are likely to involve the exchange of tangible resources. In contrast, relational psychological contracts are amorphous, implicit and highly subjective, and often involve the exchange of intangible socio-affective resources (Conway and Briner, 2009).</p>
<p>The terms of the transactional agreement are written on the chalk board at the front of the room: “.02 points/ completed task X 5 tasks = 1 point of class credit”.</p>	<p>The terms of the agreement are intrinsic and not written on the chalk board.</p>	
<p>Subjects are asked to object if they do not agree with the terms of the agreement.</p>	<p>Subjects are not asked to object if they do not agree with the terms of the contract.</p>	
<p>Subjects are told that they must remain in the room for 45 minutes during Phase I, after this they can take a break. This is done to ensure that similar amounts of time are spent on the tasks between treatments.</p>	<p>Because the first phase of the study includes feedback and discussion after each task, the subjects remain in the room for the first hour – they are not told that they must remain in the room for 45 minutes during Phase I.</p>	<p>In contrast to transactional contracts, which are characterized by narrow involvement in the organization that is limited to a few well-specified performance terms; relational contracts are open-ended collaborations with only loosely specified performance terms (Rousseau, 1995).</p>
<b>Resources Exchanged</b>		
<p>The researcher does not offer subjects candy.</p>	<p>The researcher leaves a bowl of candy next to the consent forms and lets subjects take it as they enter, when they go to break, or leave the study in order to “help maintain energy levels” for the work they need to do”.</p>	<p>Relational contract terms include personal support and concern for an employee’s well-being (Rousseau, 1995). A relational relationship can commit the employer to providing more than simply remunerative support to the employee. Transactional contracts, in contrast, center on monetary agreements, with little close involvement of</p>

		the parties (Grimmer and Oddy, 2007).
The researcher makes no note of appreciation for the subjects' time or effort.	The researcher tells subjects that their time and effort are appreciated multiple times during the study.	Similar to a traditional working "partnership", relational contracts tend to engender feelings of "affective involvement or attachment in the employee" (Grimmer and Oddy, 2007, pg. 155). Relational contracts also tend to describe obligations that are emotional and intrinsic in nature (Gimmer and Oddy, 2007).
The researcher does not show any emotion towards subjects.	The researcher is friendly and smiles when talking to the subjects.	
The researcher does not say "please" or "thank you" at any time during the study.	The researcher says "please" and "thank you" when appropriate (e.g. as the consent forms are handed in or as subjects are leaving the study)	
The researcher does not offer feedback after each task nor does she discuss the different topics with the subjects.	The researcher provides group feedback on each individual task with statements like: "great job - you really know this stuff" or "most of you did really well on this task."	Relational contracts are characterized by close involvement of the two parties and, in line with making an investment in one's employees, an emphasis on growth continuous skill development (Rousseau, 1995).
The subjects carry out the tasks by themselves; there is limited interaction with the researcher.	Once subjects have completed tasks by themselves, the task is briefly discussed as a group with the researcher in order to create more interaction with the researcher.	
The researcher verbally offers to help subjects "only with computer or technical problems" during Phase I.	The researcher verbally offers to help subjects "with anything they need" during Phase I.	Relational contract terms include personal support and concern for an employee's well-being (Rousseau, 1995). A relational relationship can commit the employer to providing more than simply remunerative support to the employee (Grimmer and Oddy, 2007).

As a result of using the above manipulation procedures, significant differences between the means for all of the measures except the measure of transactional psychological contracts were found. A summary chart of the mean scores for the measures assessed for each pilot sample can be found in Table 8.3 below.

**TABLE 8.3**

**Pilot Study - Summary of Results for Second Group of Study Trials**

<b>Measure</b>	<b>N<sup>1</sup></b>	<b>Mean</b>	<b>SD</b>	<b>N<sup>1</sup></b>	<b>Mean</b>	<b>SD</b>	<b>Sig. (Two-Tailed)</b>
Affect	52	76.48	16.50	49	64.66	16.73	0.001**
LMX	52	89.04	10.38	49	77.76	15.29	0.000**
PC- Relational	52	76.31	13.21	49	70.36	14.69	0.035**
PC – Transactional	52	37.27	16.06	49	41.35	20.45	0.266
POS	52	80.77	12.86	49	71.48	15.28	0.001**
Trust	52	87.26	11.12	49	82.56	12.50	0.048**

<sup>1</sup>Case-wise deletion

\*p > .05

\*p > .01

Note: LMX = leader-member exchange, PC = psychological contract, POS = perceived organizational support

## **Subsequent Protocol Adjustments**

### ***Work tasks and duration of study***

The work tasks created for this study required subjects to respond to questions about different services and facilities offered by the university and to write short essays about their experiences at the university. These types of tasks were chosen because it was assumed that the large majority of students would possess some basic knowledge about the university and that the tasks would therefore be more engaging and interesting to student subjects. In addition, these types of

tasks were also appropriate in conjunction with the fictional consulting organization that was created for use in this study.

After running the first half of the trials in the pilot study, it was evident that the knowledge tasks may have been too demanding of subjects' cognitive energy and attention. Subjects seemed stressed to the extent that they were concentrating intensely on achieving a high level of performance that would allow them to earn class points. This may have prevented them from noticing or reacting to the treatment manipulations. In response, during the second set of pilot trials, the tasks were shortened and all subjects were permitted to use the Internet to help them find answers to the questions. These changes seemed to greatly lessen the amount of stress that subjects were experiencing during the first manipulation, but it became evident that subjects' abilities also varied and that some subjects needed over 45 minutes to complete the required tasks, though only 30 minutes had originally been planned for the Phase I tasks. As a result of these individual differences, and in order to make the planned breach (manipulation 2) more salient and believable, the researcher decided to break the study into two separate experimental phases. The completion of each phase was rewarded with 1 class credit point. This differed from the original proposal, which had planned one experimental session that included both manipulations.

### ***Eliminating two of the originally proposed hypotheses***

Following the pilot studies, the researcher also decided to eliminate the originally proposed hypotheses 1 and 2 from the study. These hypotheses posited that greater perceptions of breach and violation would follow if relational resources were withdrawn or taken away from individuals with highly relational contracts and that, in turn, greater perceptions of breach and

violation would follow if transactional resources were withdrawn or taken away from individuals with highly transactional contracts.

The researcher's experience with the pilot studies showed that several problems could develop if these hypotheses were implemented as originally proposed. Because students were so anxious about performing well enough to earn the class credit, transactional withdrawal breach, which was to be induced by taking away some of the promised credit points, could have led to highly reactive responses by subjects. The researcher was concerned that this could have precipitated outcomes that could have confounded the results. Second, such a breach in this form could have motivated subjects to complain to others in the same subject pool, thereby leading to much attrition from the study. Finally, because the debriefing of the study was to follow once all subjects had participated, there was a risk that students would seek to do other unnecessary class work to replace credit that was supposedly lost during this study.

Also, given the difficulty experienced in recruiting the necessary number of subjects into the sample, the researcher decided that it would be more logical to focus primarily on the other hypotheses. In order to incorporate the conceptual theory used to support the first two hypotheses, it was decided that it would be most effective in an experimental setting if a transactional breach were induced in a transactional context and a relational breach were induced in a relational context as this was expected to result in the highest salience of the breach. For this reason, all treatments involved congruent exchange contexts and breaches (e.g. relational exchange, relational breach), except for the two control treatments (transactional and relational) in which no breach was induced. As a result of these changes, the study design changed from two separate 2X2 studies to one 2x4 study design, which included the addition of the treatments discussed in the next section.

### ***The addition of control treatments and withdrawal breach treatments***

With the focus of the study placed primarily on the study of breach repairs via substitutions, comparison treatments were added to provide additional information about the actual strength of the breach and the substitution effects. In the transactional and relational control treatments both Phase I and Phase II of the study were carried out without inducing breach. The second set of treatments involved a transactional and relational withdrawal breach in which no substitutions were offered. These treatments were introduced to the study once the transactional breach induction was changed from the form originally proposed. Rather than using a design that would take credit points away from subjects, the researcher decided to induce transactional breach during Phase II by offering fewer points per task, thereby requiring the completion of twice as many tasks as required during Phase I.

### ***The addition of a hypotheses comparing withdrawal versus substitution breach***

The introduction of the new withdrawal treatments allowed the researchers to compare the effects of employer's withdrawal breach – in which no substitute was offered – to the employer's substitution breaches – in which different forms of substitution were offered following a breach. Hypotheses 1 and 2 were therefore added in order to examine whether repair substitutions could possibly have a more negative effect on subjects' perceptions of breach and feelings of violation than the treatments in which substitutions were not offered.

### ***Additional Measures***

In the pilot study, psychological contract index items (Rousseau, 2000) (see Appendix G) were used to measure the strength of subjects' transactional and relational contracts. When necessary, these items were slightly adapted to fit the study context. For example, the item "My



employer has made the following commitment or obligation to me: wages and benefits I can count on”, was replaced with: “Campus Solutions and its representatives are offering me class credit that I can count on receiving.”

Due to the non-significant differences between treatments that were observed following the first pilot trials, the researcher was uncertain of whether PCI items as well as measures of trust and affect would properly capture workplace relational and transactional attitudes in an experimental setting. For this reason, additional measures were also included to assess the nature of the exchange relationship being manipulated during Phase I. These included perceived organizational support (Eisenberger et al., 1986) and leader-member-exchange (Graen and Uhl-Bien, 1995; Duchon et al., 1986). Because the results of the pilot studies support the proposed differences hypothesized in these measures (see Table 8.3 above), these measures were also used in the final study. The addition of these measures also allows the researcher to compare the study results with findings from other studies that have not relied solely on measures from the psychological contract index but also on additional measures of social exchange (e.g. Dulac et al., 2008).

## **Changes to Proposed Measures**

### ***Changes to the Breach Measure***

The researcher had originally proposed the use of a second composite measure of breach, which required subjects to assess individual and specific promises for breach. Due to the large number of treatments and the fact that not all promises were made to subjects in each treatment, the measure proved not to be feasible for the purposes of this study and was therefore eliminated. For this reason, the researcher relied on a global measure of breach (Robinson and Morrison, 2000) to assess subjects’ perceptions of psychological contract breach.

### *Changes to Measures of the Outcome Variables*

As a result of protocol changes following the pilot study, the original measures of cyberloafing, task performance, and organizational citizenship behavior (OCB) were altered. The original experimental design involved the creation of websites that were monitored by the tracking tool “Google Analytics” with the intention of providing an objective measure of group-level cyberloafing per treatment. However, by allowing the subjects to use the Internet to assist them with tasks, there was no way to determine why the websites were visited; whether for assistance or because subjects were “loafing”. For this reason, only the self-report measure of cyberloafing was used to measure this construct.

The individual differences in the amount of time needed to complete tasks also lead the researcher to change the main task performance measure, which was originally measured by assessing the time spent on task and text length. In order to make these measures less sensitive to differences between subjects, two separate objective measures of performance were created. As originally proposed, the first objective measure assessed the number of words entered for the two essays required in Phase II. In order to correct for differences in typing speeds, the second objective measure divided the number of words entered in the two essays by the amount of time spent (minutes and seconds) on the essay tasks (words entered/minute). In addition, as originally proposed, a self-report measure of task performance was also used.

Following the first pilot study phase, the OCB measure was changed from a trivia quiz on random questions, which were unrelated to the other study tasks, to a voluntary feedback survey that asked subjects what they liked most and what they liked least about the study sessions. This type of task proved to be more appropriate to the work context and involved the input of qualitative answers. Similar to the individual differences issue that existed for the main task

performance measure, the OCB measure needed to better control for individual differences. Because these questions elicited shorter answers and little time from subjects, the words per minute measure could not be applied to this measure. For this reason, OCB was assessed using dummy variable coding: 1 (took part in voluntary survey) and 0 (did not take part in voluntary survey).

### **Review of Post-pilot Study Changes**

The following list summarizes the changes that were made to the originally proposed study following the pilot study:

- Rather than administering one study session of approximately 90 minutes, two back-to-back separate study phases were administered, each of which lasted 45 to 60 minutes in duration with one small break in between.
- Students were permitted to use the Internet for help on the study tasks in all treatments.
- Two of the original hypotheses (hypotheses 1 and 2), which tested whether breach that was congruent with the nature of the contract (e.g. relational breach in a relational contract) resulted in higher levels of breach and violation, were eliminated from the study.
- A control treatment and a withdrawal breach treatment were added for both the transactional and relational contexts. This resulted in four new treatments, changing the study design from two separate 2X2 studies to one 2X4 study.
- Additional hypotheses (Hypotheses 1 and 2) were added to the study, which compared the effects of substitution breach and withdrawal breach on perceived breach and feelings of violation.
- Measures of perceived organizational support and leader-member exchange were added to the original manipulation check measures (transactional PC, relational PC, trust, and affect), which detected differences in relational versus transactional work contexts.
- The originally proposed composite measure of breach was eliminated from the study. It was decided that only a global measure of breach was appropriate given the many treatments.
- Cyberloafing was measured using only a self-report measure following a change in design that allowed subjects to use the Internet for assistance in all treatments.
- In order to better control for individual differences in typing speed, an objective measure of task performance was added that measured words entered per minute spent on task.

- The OCB measure was changed to a voluntary feedback survey that required the input of qualitative answers. It was measured using dummy variable coding: 1 (took part in voluntary survey) and 0 (did not take part in voluntary survey).

Once all of the pilot trials had been completed, all changes were submitted to the dissertation committee and Virginia Tech's Institutional Review Board for approval.

## **APPENDIX B: Subject Recruitment EMAIL and Debriefing Email**

### **Recruitment Email**

Subject: Supplemental Credit Available in your XXXX Course

Dear Student,

Your instructor, XXXX, has agreed to offer you up to 2 points of supplemental activity credit for your participation in a campus-wide study that is currently being carried out by Campus Solutions. Depending on your performance in this two phase study, you can earn a maximum of 2 points of credit (1 point for each study phase) in his/her course.

Campus Solutions is a consulting agency that is collecting data about your knowledge of the various facilities and services provided by the university, your experiences as an undergraduate student, and your general level of satisfaction as a student at Virginia Tech.

Phase I of the study will take place in the next few weeks in the computer lab in XXXX Pamplin Hall. It will take approximately 45 to 60 minutes of time. If you would like to register for Phase I, please click on the link below.

You will be able to register for Phase II of the study once you have completed Phase I.

Please only register if you can ensure that you are available during the time for which you register and that you can arrive punctually at the study site. By entering your email address, we will be able to remind you of your session time and inform you of your extra credit point earnings once you have participated in the study.

Once you arrive at the study site, you will be asked to sign an information sheet about the study in which you consent to your participation in the study. A copy of this information sheet can be found as an attachment to this email.

<https://surveylink.com>

Thank you,  
Gretchen Schaupp  
Virginia Tech  
Campus Solutions Representative

## Debriefing Email

Subject: Credit Confirmation & Study Debriefing

Dear Student,

Thank you very much for your participation in a Management doctoral study this semester.

This email is to confirm that you have earned a total of \_\_\_ / 2% supplemental activity points in conjunction with this study in your XXXX course.

Confirmation of your participation and the amount of credit you earned has been forwarded to your instructor for inclusion in this semester's final grading calculations.

The data you provided for this study will be used for the completion of a doctoral dissertation in the Management Department. Please understand that your responses will remain completely confidential. Please feel free to write back to the researcher of this study if you have any questions about the study or how your data will be used.

The data collected in this study will serve to inform future studies that focus on establishing working contract between employees and an employer. In order to realistically emulate the development of employer-employee relationship, an artificial organization called Campus Solutions was presented in this study. This organization does not really exist, and we apologize for the use of deception in this study.

Now that you know the nature of the study, you have the right to have the data obtained in this study destroyed instead of used for data analysis. Please write to the researcher (Gretchen Schaupp: xxxxxxxx@campussolutions.org) *within 14 days of receiving this email* and request that your data be removed from the study if you no longer want it to be included in the study's results.

Thank you again for your participation.

If you have any questions please contact:

Gretchen Schaupp (540) 231-1124  
Management PhD Student

Dr. Anthony (Terry) Cobb (540) 231-6363  
tcobb@vt.edu  
Principal Investigator

Dr. David Moore (540) 231-4991  
Chair, Institutional Review Board

## APPENDIX C: Screen Shots of Campus Solutions Website

The screenshot shows the homepage of the Campus Solutions website. The browser window title is "Campus Solutions | Welcome" and the address bar shows "www.campussolutions.org/index.html". The website features a blue header with the "Campus Solutions" logo and navigation links: HOME, ABOUT, SURVEYS, CONTACT. A large image of graduates in caps and gowns is displayed on the right. The main content area is titled "Innovating Higher Ed" and contains the following text:

Campus Solutions is working together with colleges and universities across the country to help them better serve their students. We visit campuses nationwide to provide universities with important feedback that comes directly from their currently enrolled students. This information about your school's campus, programs, and services is vital in helping institutions make the student experience even better.

Below the text is a navigation bar with three sections:

- WHAT WE DO**: We are the information link between institutions of higher education. (Icon: Green checkmark)
- SURVEY TOOLS**: We use state of the art survey tools that quickly and easily collect data. (Icon: Red and white survey tool)
- TALK TO US**: Can we help your college or university? We might be the best person to talk to. (Icon: Blue @ symbol)

The Windows taskbar at the bottom shows the time as 10:08 PM on 2/25/2012.

The screenshot shows the "Surveys" page of the Campus Solutions website. The browser window title is "Campus Solutions | Surveys" and the address bar shows "www.campussolutions.org/surveys\_01.html". The website features a blue header with the "Campus Solutions" logo and navigation links: HOME, ABOUT, SURVEYS, CONTACT. A large image of students at a computer is displayed on the left. The main content area is titled "Surveys" and contains the following text:

If you are taking part in a session today, we thank you and ask you to keep the following in mind:


- It is important that you sign the consent form before you begin this session.
- Please put forth your best effort when taking the surveys and providing information.
- Please listen to any directions given to you by your Campus Solutions representative.
- All of your information will be kept confidential.

When your representative instructs you to do so, please begin by clicking on the corresponding survey from the list below:

- VT-A
- VT-B
- VT-C
- VT-D
- VT-E

The Windows taskbar at the bottom shows the time as 10:05 PM on 2/25/2012.

Firefox Campus Solutions  
 google.com https://sites.google.com/site/campusolutions2011/



Search this site

- 2011 VT Campus Research Study
  - Consent Form
  - Calendar
  - Project Documents
  - Surveys
  - Tasks & Actions
  - Sitemap
- Recent site activity

**141**  
days since Fall Break

**99**  
days since Thanksgiving Break

## Welcome to Phase I of this study!

Dear Virginia Tech Participants,

Before starting this survey session, please make sure you have read, signed, and handed in the consent form provided to you.

Please answer all of questions as best as you can. You must provide your own answers. Do not look at others' monitors or talk to your neighbors for assistance. When you have finished with a survey, please simply close it.


Begin the survey session by clicking on the "Surveys" link below, which will lead to the list of surveys. Please note that the final survey is required to receive credit for your participation - you will need to enter some personal information (name, ID number) to ensure that your instructor can confirm your participation.

**Surveys**  
Please click above to open list of surveys.

**Consent Form**

10:08 PM 2/25/2012

Firefox Surveys - Campus Solutions  
 google.com https://sites.google.com/site/campusolutions2011/surveys



Search this site

- 2011 VT Campus Research Study
  - Consent Form
  - Calendar
  - Project Documents
  - Surveys
  - Tasks & Actions
  - Sitemap
- Recent site activity

**141**  
days since Fall Break

**99**  
days since Thanksgiving Break

## Surveys

Please click on "View" under Task 1 to get started.

It is important that you proceed IN ORDER through the surveys, starting with Task 1 and ending with Task 6, unless your Campus Solutions Representative asks you to do otherwise.


<input type="checkbox"/>	<a href="#">Task 1 View</a>	T & F No. 1	Oct 4, 2011 3:06 P G S
<input type="checkbox"/>	<a href="#">Task 2 View</a>	VT Services Map	Oct 11, 2011 7:28 G S
<input type="checkbox"/>	<a href="#">Task 3 View</a>	Bus Routes	Oct 11, 2011 7:30 G S
<input type="checkbox"/>	<a href="#">Task 4 View</a>	Hokie Football	Oct 14, 2011 7:31 G S
<input type="checkbox"/>	<a href="#">Task 5 View</a>	VT Majors & Essays	Oct 14, 2011 7:31 G S
<input type="checkbox"/>	<a href="#">Task 6 View</a>	Feedback & Phase I Registration	Oct 11, 2011 7:36 G S

Sign in | Report Abuse | Print Page | Remove Access | Powered By Google Sites

10:18 PM 2/25/2012



Firefox Campus Solutions P2-D  
 google.com https://sites.google.com/site/campusolutionsvtp2d/



Search this site

- VT Campus - Phase II
  - Consent Form
  - Calendar
  - Project Documents
  - Surveys
  - Tasks & Actions
  - Sitemap

**141**  
days since  
Fall Break

**99**  
days since  
Thanksgiving Breack

## Welcome to Phase II !

Dear Student Participants,

Before starting this survey session, please make sure you have read, signed, and handed in the consent form provided to you.

Please answer all of questions as best as you can. You must provide your own answers. Do not look at others' monitors or talk to your neighbors for assistance. When you have finished with a survey, please simply close it.

Begin the survey session by clicking on the "Surveys" link below, which will lead to the list of surveys. Please note that the final survey is voluntary and optional - it is not required to receive extra credit.

**Surveys**  
Please click above to open list of surveys.

**Consent Form**

10:09 PM 2/25/2012

Firefox Surveys - Campus Solutions P2-D  
 google.com https://sites.google.com/site/campusolutionsvtp2d/surveys

- Surveys
- Tasks & Actions
- Sitemap

**141**  
days since  
Fall Break

**99**  
days since  
Thanksgiving Breack

It is important that you proceed in order through the surveys - starting with Task 1 - unless your Campus Solutions Representative instructs you otherwise.

The last survey is voluntary and is not required for Phase II credit.

*However, before you go, please open the voluntary survey and either decide to exit the session or to continue with the voluntary survey.*

<input type="checkbox"/>	<a href="#">Task 1 View</a>	VT Dining	Oct 14, 2011 9:18 G S
<input type="checkbox"/>	<a href="#">Task 2 View</a>	Campus Map Section 1	Oct 14, 2011 9:18 G S
<input type="checkbox"/>	<a href="#">Task 3 View</a>	Campus Map Section 2	Oct 14, 2011 9:19 G S
<input type="checkbox"/>	<a href="#">Task 4 View</a>	Blacksburg Area	Oct 14, 2011 9:19 G S
<input type="checkbox"/>	<a href="#">Task 5 View</a>	Essay - Blacksburg	Oct 14, 2011 9:20 G S
<input type="checkbox"/>	<a href="#">Task 6 View</a>	Feedback 1	Oct 13, 2011 10:52 G S
<input type="checkbox"/>	<a href="#">Task 7 View</a>	T & F No. 2	Oct 12, 2011 12:52 G S
<input type="checkbox"/>	<a href="#">Task 8 View</a>	Essay - Friends & Family	Oct 6, 2011 8:32 A G S
<input type="checkbox"/>	<a href="#">Task 9 View</a>	Essay - VT Experiences	Oct 6, 2011 8:34 A G S
<input type="checkbox"/>	<a href="#">UTask 10 View</a>	T & F No. 3	Oct 12, 2011 12:55 G S
<input type="checkbox"/>	<a href="#">UTask 11 View</a>	Feedback 2	Oct 6, 2011 8:53 A G S
<input type="checkbox"/>	<a href="#">Voluntary View</a>	Please open to exit study	Oct 6, 2011 8:40 A G S

10:17 PM 2/25/2012

## APPENDIX D: Examples of Tasks Used in Study Manipulations

Several examples of tasks that were used to induce the study manipulations are listed below. In total, fifteen separate tasks were prepared for this study. Tasks 1 through 3 are examples of tasks used to induce the development of the psychological contract: subjects completed these in exchange for points, believing that the number of points rewarded was dependent upon task performance. Tasks 4 and 5 were essay tasks, which were also required of subjects in exchange for points. These tasks were used to measure subjects' post-breach task performance (number of words entered). Task 6 was a voluntary last task that was presented to subjects. It was used to measure organizational citizenship behavior (dummy coded as to whether or not the subjects chose to carry out the voluntary task or not, 0 = did not complete, 1 = did complete).

### Task 1: Exchange Task – Blacksburg Transit Bus Routes

Q1 Which bus route would you take if you were traveling from campus to the Post Office on University Blvd.?

- I don't know. (1)
- Harding Avenue (2)
- Hokie Express (3)
- Hethwood (4)
- Progress St. (5)
- Tom's Creek (6)
- Two Town Trolley (7)
- Smart Way Bus (8)

Q2 Which bus route would you take if you were traveling from Blacksburg to the New River Valley Mall in Christiansburg?

- I don't know. (1)
- Harding Avenue (2)
- Hokie Express (3)
- Hethwood (4)
- Progress St. (5)
- Tom's Creek (6)
- Two Town Trolley (7)
- Smart Way Bus (8)

Q3 Which bus route would you take if you were traveling from campus in the direction of Blacksburg Middle School on Price's Fork Rd. or if you lived in Foxridge?

- I don't know. (1)
- Harding Avenue (2)
- Hokie Express (3)
- Hethwood (4)
- Progress St. (5)
- Tom's Creek (6)
- Two Town Trolley (7)
- Smart Way Bus (8)

Q4 Which bus route would you take if you were traveling from campus to Roanoke St. or if you lived in Windsor Hills?

- I don't know. (1)
- Harding Avenue (2)
- Hokie Express (3)
- Hethwood (4)
- Progress St. (5)
- Tom's Creek (6)
- Two Town Trolley (7)
- Smart Way Bus (8)

Q5 Which bus route would you take if you were traveling from campus in to Patrick Henry Dr.?

- I don't know. (1)
- Harding Avenue (2)
- Hokie Express (3)
- Hethwood (4)
- Progress St. (5)
- Tom's Creek (6)
- Two Town Trolley (7)
- Smart Way Bus (8)

Q6 Which bus route would you take if you were traveling from campus to the Oak Lane community?

- I don't know. (1)
- Harding Avenue (2)
- Hokie Express (3)
- Hethwood (4)
- Progress St. (5)
- Tom's Creek (6)
- Two Town Trolley (7)
- Smart Way Bus (8)

Q7 Which bus route would you take if you were traveling from campus to the Roanoke Airport?

- I don't know. (1)
- Harding Avenue (2)
- Hokie Express (3)
- Hethwood (4)
- Progress St. (5)
- Tom's Creek (6)
- Two Town Trolley (7)
- Smart Way Bus (8)

Q8 Which bus route would you take if you were traveling from campus to Montgomery Regional Hospital?

- I don't know. (1)
- Harding Avenue (2)
- Hokie Express (3)
- Hethwood (4)
- Progress St. (5)
- Tom's Creek (6)
- Two Town Trolley (7)
- Smart Way Bus (8)

## **Task 2: Exchange Task – Virginia Tech Services Map**

Q1 Click on the campus building that you would go to if you were sick and needed to see a doctor.

Q2 Click on the campus building that you would go to if you needed to pay your tuition.

Q3 Click on the area of campus where you would find a large pond full of goldfish and koi.

Q4 Click on the campus building that you would go to if you were an international student and you wanted to take English courses.

Q5 Click on the campus building that you might live in if you are a member of the University Honors Program.

Q6 Click on the campus building that you would go to if you were looking for a convenience store.

Q7 Click on the campus building that you would go to if you have an interview set up by Hokies4Hire.

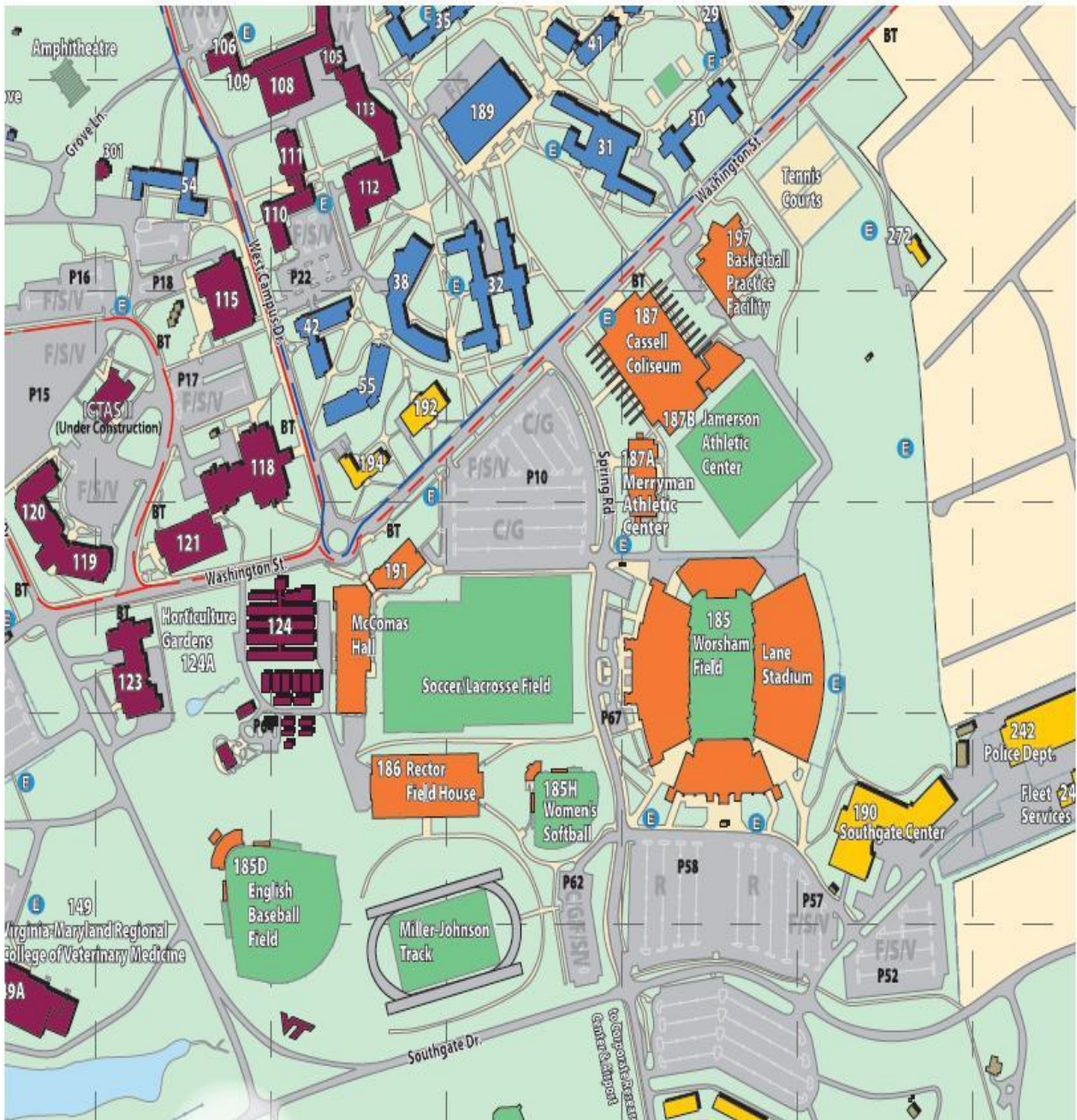
Q8 Click on the campus building in which graduation is held every year.

Q9 Click on the campus building that has two story growth chambers inside which enable research on life-size trees.

Q10 Click on the parking lot that you would park in if you were going to go work out at the newly renovated student gym.

Q11 Click on the campus building where you would find the Cooke Counseling Center.

Q12 Click on the campus building that holds a sports medicine complex as well as Coach Beamer's office.



**Task 3: Exchange Task – Locating Places in the Blacksburg Area**

Q1 Where are these places located?

Virginia Tech Campus	Blacksburg Downtown Area & Main St.	ONLY in Christiansburg	I really do not know.
_____ The Duck Pond (1)	_____ The Duck Pond (1)	_____ The Duck Pond (1)	_____ The Duck Pond (1)
_____ Wal-Mart (2)	_____ Wal-Mart (2)	_____ Wal-Mart (2)	_____ Wal-Mart (2)
_____ Au Bon Pain (3)	_____ Au Bon Pain (3)	_____ Au Bon Pain (3)	_____ Au Bon Pain (3)
_____ Poor Billie's Restaurant (4)	_____ Poor Billie's Restaurant (4)	_____ Poor Billie's Restaurant (4)	_____ Poor Billie's Restaurant (4)
_____ TJMaxx (5)	_____ TJMaxx (5)	_____ TJMaxx (5)	_____ TJMaxx (5)
_____ Horticultural Gardens (6)	_____ Horticultural Gardens (6)	_____ Horticultural Gardens (6)	_____ Horticultural Gardens (6)
_____ Olive Garden Restaurant (7)	_____ Olive Garden Restaurant (7)	_____ Olive Garden Restaurant (7)	_____ Olive Garden Restaurant (7)
_____ The Lyric Theater (8)	_____ The Lyric Theater (8)	_____ The Lyric Theater (8)	_____ The Lyric Theater (8)
_____ The BreakZONE (9)	_____ The BreakZONE (9)	_____ The BreakZONE (9)	_____ The BreakZONE (9)
_____ The Department of Motor Vehicles (10)	_____ The Department of Motor Vehicles (10)	_____ The Department of Motor Vehicles (10)	_____ The Department of Motor Vehicles (10)
_____ The Huckleberry Trail (11)	_____ The Huckleberry Trail (11)	_____ The Huckleberry Trail (11)	_____ The Huckleberry Trail (11)
_____ The H20kies Aquatic Center (12)	_____ The H20kies Aquatic Center (12)	_____ The H20kies Aquatic Center (12)	_____ The H20kies Aquatic Center (12)
_____ War Memorial Chapel (13)	_____ War Memorial Chapel (13)	_____ War Memorial Chapel (13)	_____ War Memorial Chapel (13)
_____ Chipotle (14)	_____ Chipotle (14)	_____ Chipotle (14)	_____ Chipotle (14)
_____ The YMCA (15)	_____ The YMCA (15)	_____ The YMCA (15)	_____ The YMCA (15)
_____ VT Parking Services (16)	_____ VT Parking Services (16)	_____ VT Parking Services (16)	_____ VT Parking Services (16)
_____ VT Off Campus Housing Office (17)	_____ VT Off Campus Housing Office (17)	_____ VT Off Campus Housing Office (17)	_____ VT Off Campus Housing Office (17)

_____ Top of the Stairs (18)	_____ Top of the Stairs (18)	_____ Top of the Stairs (18)	_____ Top of the Stairs (18)
_____ Target (19)	_____ Target (19)	_____ Target (19)	_____ Target (19)
_____ Hokies 4 Hire (20)	_____ Hokies 4 Hire (20)	_____ Hokies 4 Hire (20)	_____ Hokies 4 Hire (20)
_____ KMart (21)	_____ KMart (21)	_____ KMart (21)	_____ KMart (21)
_____ Champs (22)	_____ Champs (22)	_____ Champs (22)	_____ Champs (22)
_____ The Cellar (23)	_____ The Cellar (23)	_____ The Cellar (23)	_____ The Cellar (23)
_____ BW3 (24)	_____ BW3 (24)	_____ BW3 (24)	_____ BW3 (24)
_____ Books-A- Million (25)	_____ Books-A- Million (25)	_____ Books-A- Million (25)	_____ Books-A- Million (25)
_____ Barnes and Noble (26)	_____ Barnes and Noble (26)	_____ Barnes and Noble (26)	_____ Barnes and Noble (26)
_____ Sal's (27)	_____ Sal's (27)	_____ Sal's (27)	_____ Sal's (27)
_____ Our Daily Bread (28)	_____ Our Daily Bread (28)	_____ Our Daily Bread (28)	_____ Our Daily Bread (28)
_____ VT Athletic Ticket Office (29)	_____ VT Athletic Ticket Office (29)	_____ VT Athletic Ticket Office (29)	_____ VT Athletic Ticket Office (29)
_____ Pet Smart (30)	_____ Pet Smart (30)	_____ Pet Smart (30)	_____ Pet Smart (30)
_____ Regal Cinema (31)	_____ Regal Cinema (31)	_____ Regal Cinema (31)	_____ Regal Cinema (31)
_____ VT Performing Arts Box Office (32)	_____ VT Performing Arts Box Office (32)	_____ VT Performing Arts Box Office (32)	_____ VT Performing Arts Box Office (32)

#### Task 4: Performance Task – Students’ Experiences at Virginia Tech

Q1 Please take the next ten minutes to comment on your experiences with 3 of the following opportunities offered to undergraduate students at Virginia Tech. Your comments can be either positive or negative. We want to know if you are satisfied with your experiences with regard to this opportunity and why or why not. Choose those items to which you have had the most exposure or about which you most wish to comment. If you do not have experience with at least five of these, please choose the "other" option from the list and discuss your own examples of opportunities you have taken advantage of during your time at Virginia Tech. When you are finished, please exit the survey.



Please choose from the following list:

- Blacksburg Transit Bus Service (1)
- Campus Dining Halls (2)
- Cook Counseling Center (3)
- Intramural Sports (4)
- Undergraduate Honors Program (5)
- Campus Sororities and Fraternities (6)
- University Sponsored Study Abroad Program (7)
- Schiffert Health Center (8)
- VT Small Animals Clinic (for pets) (9)
- University Sponsored Club or Organization (10)
- Campus Fitness Facilities or Classes (11)
- Outside Recreational Areas (12)
- Sports Events (attending as a fan not a player) (13)
- Campus Technology and/or Computer Labs (14)
- Other (15)

Q2 Describe your experiences with this VT service or facility. Are you satisfied with it? Why or why not?

Q3 Please choose from the following list. You may also choose the "other" option from the list and discuss your own examples of services or facilities which may not be on the list below.

- Blacksburg Transit Bus Service (1)
- Campus Dining Halls (2)
- Cook Counseling Center (3)
- Intramural Sports (4)
- Undergraduate Honors Program (5)
- Campus Sororities and Fraternities (6)
- University Sponsored Study Abroad Program (7)
- Schiffert Health Center (8)
- VT Small Animals Clinic (for pets) (9)
- University Sponsored Club or Organization (10)
- Campus Fitness Facilities or Classes (11)
- Outside Recreational Areas (12)
- Sports Events (attending as a fan not a player) (13)
- Campus Technology and/or Computer Labs (14)
- Other (15)

Q4 Describe your experiences with this VT service or facility. Are you satisfied with it? Why or why not?

Q5 Please choose from the following list. You may also choose the "other" option from the list and discuss your own examples of services or facilities which may not be on the list below.

- Blacksburg Transit Bus Service (1)
- Campus Dining Halls (2)
- Cook Counseling Center (3)
- Intramural Sports (4)
- Undergraduate Honors Program (5)
- Campus Sororities and Fraternities (6)
- University Sponsored Study Abroad Program (7)
- Schiffert Health Center (8)
- VT Small Animals Clinic (for pets) (9)
- University Sponsored Club or Organization (10)
- Campus Fitness Facilities or Classes (11)
- Outside Recreational Areas (12)
- Sports Events (attending as a fan not a player) (13)
- Campus Technology and/or Computer Labs (14)
- Other (15)

Q6 Describe your experiences with this VT service or facility. Are you satisfied with it? Why or why not?

### **Task 5: Performance Task – Recruitment Influence**

Q1 When students come to Blacksburg for a campus visit of Virginia Tech, they often bring their parents or guardians with them. These individuals often have a lot of influence on future Virginia Tech students and their decision to choose Virginia Tech for their undergraduate education. Take about ten minutes and answer the following questions in a single essay:

1. Which individuals (family/friends) had the greatest impact on your decision to attend Virginia Tech?
2. What are three things you would want parents to know about Virginia Tech if they were considering this university for their kid(s)? These can be either positive or negative.
3. If this question applies to you: What features of Virginia Tech did your parents/guardians seem to like the most about the VT campus and facilities when you were making your undergraduate school decision?  
Please type in the space below:

### **Task 6: Voluntary Task (Used to Measure Organizational Citizenship Behavior)**

Q1 You have completed all of the tasks required for eight points of extra credit. The following task is voluntary. In cooperation with Campus Solutions, the researchers of this study are currently assessing how to recruit students in the future - especially in the case of not being able to offer high amounts of extra credit. If you would like to help us by offering your opinions, please continue with these 4 short questions. Otherwise, you may exit this survey, close all windows on your computer, and exit the computer room. Thank you for your participation in this study and have a great rest of the day!!!

- Continue with this survey. (1)
- Exit this survey. (2)

Q1 Which aspects of this study (both Phases I and II) did you find to be most enjoyable and why? Please provide your answer in the space below:

Q2 Which aspects of this study (both Phases I and II) did you find to be least enjoyable and why? Please provide your answer in the space below:

## **APPENDIX E: Study Consent Forms**

### **Consent Information – Phase I**

#### **Information Sheet**

Today you will be accessing a website and answering survey questions about the Virginia Tech campus and its facilities and services, as well as about your experiences as a student at Virginia Tech. This website and the questions are part of a study on the psychological contract. Due to the nature of this study, the researchers cannot provide you with further information until the study has been completed.

During the study, you will be asked to complete several surveys that include multiple choice questions, text entry questions, maps of the campus that ask you to locate certain points of interest, and longer essay questions. The duration of each study phase is expected to take approximately 45 to 60 minutes.

Participation in each phase of this study will earn you a maximum 1% of the total 5% of possible “supplemental activity credit” in your Management 3304 course. This means that participation in both Phase I and Phase II of this study will earn you a maximum 2% of the total 5% of possible supplemental activity credit. However, you must complete Phase I in order to take part in Phase II. In accordance with your class syllabus, supplemental activity credit is an integral part of your course, it is not extra credit. The credit will be calculated into your final course grade. Please note that your participation in this study is strictly voluntary and that various other studies/activities for supplemental activity credit will be made available to you in your Management 3304 course.

The answers that you provide in the surveys will be recorded and accessed by the researchers of this study. You are free to refrain from answering any questions that you are uncomfortable with, but please understand that your responses will remain completely confidential.

We hope that you are comfortable answering these basic questions related to this research. If not, you may be excused from further participation in this study without penalty. Even if you choose not to complete the study, you will still be awarded 20% of the total maximum credit available for one phase of the study.

Statement of Permission: I have read and understand the conditions of this study. I am aware of the fact that I must be at least 18 years of age to take part in this study. I have had all of my questions answered. I understand that I may choose not to answer any questions that I feel uncomfortable answering. I hereby acknowledge the above and give my voluntary consent for participation in this project. I understand that I may withdraw from this study at any time without penalty.

If I have any questions about this study I may contact:

Dr. Anthony (Terry) Cobb                      (540) 231-6363  
Principal Investigator

Dr. David Moore  
Chair, Institutional Review Board

(540) 231-4991

Thank you for your participation.

---

Signature

---

Date

## **Consent Information – Phase II**

### **Information Sheet**

Today you will be taking part in Phase II of this study. If you have not completed Phase I of this study, then you are not eligible to take place in today's survey session. If you have not completed Phase I of this study, please let your Campus Solutions representative know immediately.

Similar to the activities that you performed in Phase I, you will again be accessing a website and answering survey questions about the Virginia Tech campus and its facilities and services as well as about your experiences as a student at Virginia Tech. This website and the questions are part of a study on the psychological contract. Due to the nature of this study, the researchers cannot provide you with further information until the study has been completed.

During the study, you will be asked to complete several surveys that include multiple survey based tasks and longer essay questions. The duration of this study session is expected to take 45 to 60 minutes.

Participation in each phase of this study will earn you a maximum 1% of the total 5% of possible "supplemental activity credit" in your Management 3304 course. This means that participation in both Phase I and Phase II of this study will earn you a maximum 2% of the total 5% of possible supplemental activity credit. However, you must complete Phase I in order to take part in Phase II. In accordance with your class syllabus, supplemental activity credit is an integral part of your course, it is not extra credit. The credit will be calculated into your final course grade. Please note that your participation in this study is strictly voluntary and that various other studies/activities for supplemental activity credit will be made available to you in your Management 3304 course.

The answers that you provide in the surveys will be recorded and accessed by the researchers of this study. You are free to refrain from answering any questions that you are uncomfortable with, but please understand that your responses will remain completely confidential.

We hope that you are comfortable answering these basic questions related to this research. If not, you may be excused from further participation in this study without penalty. Even if you choose not to complete the study, you will still be awarded 20% of the total maximum credit available for one phase of the study.

Statement of Permission: I have read and understand the conditions of this study. I am aware of the fact that I must be at least 18 years of age to take part in this study. I have had all of my questions answered. I understand that I may choose not to answer any questions that I feel uncomfortable answering. I hereby acknowledge the above and give my voluntary consent for participation in this project. I understand that I may withdraw from this study at any time without penalty.

If I have any questions about this study I may contact:  
Dr. Anthony (Terry) Cobb (540) 231-6363

Principal Investigator

Dr. David Moore (540) 231-4991  
Chair, Institutional Review Board

Thank you for your participation.

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Signature

---

Date

## **APPENDIX F: Phase I Verbal Scripts for Campus Solutions Representative**

### **Script 1: Phase I, Transactional Treatment**

*The following information is read to students at the beginning of Phase I after consent forms have been filled out and any questions regarding the consent form have been answered:*

It is now (insert starting time of Phase I) and we are going to get started with Phase I of this study. First, I would like to introduce myself: My name is (insert organizational representative's name here) and I am the Campus Solutions representative for this university. Just to confirm: you have signed up for a two-hour computer based study session in conjunction with your (insert name of course here) class. This study will be carried out in two phases – each lasting approximately one hour each. Depending on your performance during each phase, you will be awarded up to 2 points of credit in your (insert name of course here) class. A maximum of one credit point can be earned in each phase.

Now I will answer a question that many of you might have: what is the purpose of this study? Well, in short, your university is working closely with the Campus Solutions consulting organization in order to collect information from current students regarding their knowledge of the university's services and facilities and to ask them for feedback on the experiences that they have had while attending the university. This information will be used to create future recruitment strategies and to develop information to educate new students about what the university has to offer.

Before you start on your tasks for Campus Solutions today, I am going to read a list of specific instructions to you. These will explain this study and what you will be doing during the next two hours.

You will be carrying out a number of different tasks today on the Campus Solutions website, which we will access in a few minutes. The website will contain a list of tasks, each of which will test your knowledge about one particular university feature – for example, the dining halls. In order to earn your first credit point for Phase I of the study, you must answer at least half of the of the questions right in each task in order to receive that point. This stipulation exists in order to make sure that students take the study seriously and put forth an honest effort. You may also access the Internet at any time to help you complete the tasks. I repeat, you may access the Internet at any time to help you complete the tasks.

*The researcher writes the following on the board: “.02 points X 5 tasks = 1 credit point”*

Does everyone understand and agree with these conditions? If you do not, please let me know.

*The researcher waits for students to respond. If there is disagreement, the researcher clears up any open questions about the study conditions.*



During Phase I, you will be working through a list of different tasks at your own pace. These tasks will take most people about 40 to 45 minutes to complete. If you finish before 45 minutes are over, sit quietly and wait until 45 minutes have passed. You may also access the Internet during this time. At this point, I will let you know that you may leave the room and take a short break. Return punctually at (enter time Phase II start time) if you plan to take part in Phase II of this study.

Finally, it is important that you work during the study as you would in a testing environment. Do not look at others monitors, talk to others, or disrupt others while they are working. Doing so could affect the validity of the study results and for this reason you will be dismissed from the study if you do not follow these guidelines. Finally, make sure that your cell phones have been silenced. You will now need to access the following website:

*The representative writes the web address for Campus Solutions ([www.campussolutions.org](http://www.campussolutions.org)) at the front of the room.*

*The representative makes sure that everyone in the room gets the site to open properly.*

Now click on the *Surveys* tab. Follow the directions listed on the website. As stated on the website, it is important that you go through the tasks in order.

Go ahead and get started with Task 1. Though I cannot help you with questions that test your knowledge, I can help you with any questions that you may have regarding the website or technical issues.

*The subjects work through the tasks at their own pace.*

*After 45 minutes have elapsed, subjects are told that they may leave the room for a short break once they are finished with all of the tasks. They are asked to be back in the room and sitting at their monitors by the time the next phase is scheduled to start if they wish to take part in Phase II of the study.*

## **Script 2: Phase I, Relational Psychological Contract Treatment**

*The following information is read to students at the beginning of Phase I after consent forms have been filled out and any questions regarding the consent form have been answered:*

Before we get started, I would like to thank you all very much for participating in this study today. Your time and effort are greatly appreciated. I would also like to introduce myself: My name is (insert organizational representative's name here) and I am the Campus Solutions representative for this university. Just to confirm: you have signed up for a two-hour computer based study session in conjunction with your (insert name of course here) class. This study will be carried out in two phases – each lasting approximately one hour each. Depending on your performance during each phase, you will be awarded up to 2 points of credit in your (insert name of course here) class. A maximum of one credit point can be earned in each phase.

Now I will answer a question that many of you might have: what is the purpose of this study? Well, in short, your university is working closely with the Campus Solutions consulting organization in order to collect information from current students regarding their knowledge of the university's services and facilities and to ask them for feedback on the experiences that they have had while attending the university. This information will be used to create future recruitment strategies and to develop information to educate new students about what the university has to offer.

Before you start on your tasks for Campus Solutions today, I am going to read a list of specific instructions to you. These will explain this study and what you will be doing during the next two hours.

You will be carrying out a number of different tasks today on the Campus Solutions website, which we will access in a few minutes. The website will contain a list of tasks, each of which will test your knowledge about one particular university feature – like the dining halls, for example. In order to earn your first credit point for Phase I of the study, you must answer a minimum number of questions correctly in each task in order to receive that point. This stipulation exists in order to make sure that students take the study seriously and put forth an honest effort. You will not be told until later in the semester whether you received full credit. However, if you do your best and take the study seriously, you should be fine. You will also be happy to know that you may access the Internet at any time to help you complete the tasks. I repeat, you may access the Internet at any time to help you complete the tasks. This is a special favor that I, as your Campus Solutions representative, am offering this group. This should help take a bit of the stress off and ensure that you earn the first credit point.

During Phase I, it is important that we go through the tasks as a group. This will require you to only complete one task at a time. Please do not move on with the next task until I tell you to do so. We will have a brief group discussion of each task following your completion of that task and this discussion will include feedback on how the group performed on a particular task. If you finish before the others, please sit quietly and wait for the feedback session. You may also access the Internet during this time. The last two tasks in this phase will be self-guided, and we will not discuss them as a group. After you have completed all tasks in this phase, you may leave the room and take a short break. Feel free to take some candy during the break; it will help you maintain your energy level for Phase II. Please return punctually at (enter time Phase II start time) if you plan to take part in Phase II of this study.

Finally, it is important that you work during the study as you would in a testing environment. Please do not look at others monitors, talk to others, or disrupt others while they are working. Doing so could affect the validity of the study results and for this reason you will be dismissed from the study if you do not follow these guidelines. Finally, please make sure that your cell phones have been silenced. Please access the following website.

*The representative writes the web address for Campus Solutions ([www.campussolutions.org](http://www.campussolutions.org)) at the front of the room.*

*The representative makes sure that everyone in the room gets the site to open properly.*

Please click on the *Surveys* tab. Follow the directions listed on the website. It is important that you go through the tasks in order and, again, that you wait after you have finished the first task. Once everyone has finished, you will receive feedback about the group's performance on that task.

If at any time you need help with anything, please do not hesitate to ask me to come over to your computer.

*After the first task is completed, the representative uses the feedback from the Qualtrics™ surveys to let them know how they did as a group. The representative then discusses the more difficult questions with them, shows interest in their comments, and makes notes of subjects' responses in a notebook.*

*The next few tasks are also carried out in this manner. At the beginning of the essay tasks, subjects are told that there will be no more feedback following the tasks and that they can complete the remainder of the tasks at their own pace. They are told that they may leave the room for a short break once they are finished with all of the tasks. They are asked to be back in the room and sitting at their monitors by the time the next phase is scheduled to start if they wish to take part in Phase II of the study.*

### **Script 3: Phase II, Transactional Breach, Relational Substitution**

*The following information is read to students at the beginning of Phase II after consent forms have been filled out and any questions regarding the consent form have been answered:*

You will now need to access the website [www.campussolutions.org](http://www.campussolutions.org) again and click on the *Surveys* link.

*Representative waits for everyone to open the page again.*

Your group has unfortunately been randomly selected to take part in Survey X. Please click on that survey now.

*Representative waits.*

As you open that survey you will see that Survey X requires you to complete twice as many tasks during Phase II as you did during Phase I. However, you can still only earn a maximum of one point for this phase. So, your new work conditions are:

*The representative writes the following at the front of the room:*

*“.01 points X 10 tasks = 1 credit point”*

*The researcher waits for subjects to read and understand the new conditions.*

Does everyone understand and agree with these new conditions for Phase II? If you do not, please let me know.

In order to “make this up to you”, I have replaced some of the original tasks with easier tasks, which should help you to get everything finished within the hour. You will see that these new tasks were uploaded during your break.

*The researcher writes: “Some tasks have been replaced with easier tasks – take advantage of these” at the front of the room.*

The performance stipulation – that you must answer at least half of the questions correctly per task in order to earn your credit point for this phase – remains the same as it did in Phase I. If, due to the new performance conditions, you would like to exit the study, please print your name at the bottom of your information sheet and turn it in. As stated in the information sheet, you will receive .20 points for Phase II simply for taking part in the study up until this point.

Does everyone understand and agree with these new conditions for Phase II? If you do not, please let me know.

*The researcher waits for students to respond. If there is disagreement, the researcher clears up any open questions about the study conditions. If a subject decides to no longer take part in Phase II, they are asked to turn in their consent forms and to leave.*

Please be sure to follow the instructions for Survey X as they are listed on the Campus Solutions website. You can get started with the first task in Survey X now.

*Students are not directly told that they may leave the study when they are finished with all tasks. When the first student finishes and asks the researcher what he or she should do next, the researcher tells him or her that she may leave when finished. This information is then announced to the class.*

#### **Script 4: Phase II, Transactional Breach, Transactional Substitution**

*The following information is read to students at the beginning of Phase II after consent forms have been filled out and any questions regarding the consent form have been answered:*

You will now need to access the website [www.campussolutions.org](http://www.campussolutions.org) again and click on the *Surveys* link.

*Representative waits for everyone to open the page again.*

Your group has unfortunately been randomly selected to take part in Survey X. Please click on that survey now.

*Representative waits.*

As you open that survey you will see that Survey X requires you to complete twice as many tasks during Phase II as you did during Phase I. However, you can still only earn a maximum of one point for this phase. So, your new work conditions are:

*The representative writes the following at the front of the room:*

*“.01 points X 10 tasks = 1 credit point”*

*The researcher waits for subjects to read and understand the new conditions.*

Does everyone understand and agree with these new conditions for Phase II? If you do not, please let me know.

In order to “make this up to you”, I have replaced some of the original tasks intended for this phase with shorter tasks, which should help you to get everything finished within the hour. You will see that these new tasks were uploaded during your break. Also, you may leave once you have completed all of the required tasks for this study.

*The researcher writes: “Some tasks have been replaced with shorter tasks – take advantage of these” at the front of the room.*

The performance stipulation – that you must answer at least half of the questions correctly per task in order to earn your credit point for this phase – remains the same as it did in Phase I. If, due to the new performance conditions, you would like to exit the study, please print your name at the bottom of your information sheet and turn it in. As stated in the information sheet, you will receive .20 points for Phase II simply for taking part in the study up until this point.

Does everyone understand and agree with these new conditions for Phase II? If you do not, please let me know.

*The researcher waits for students to respond. If there is disagreement, the researcher clears up any open questions about the study conditions. If a subject decides to no longer take part in Phase II, they are asked to turn in their consent forms and to leave.*

Please be sure to follow the instructions for Survey X as they are listed on the Campus Solutions website. You can get started with the first task in Survey X now.

*The researcher writes: “You may leave once you have completed all of the required tasks. Please turn in your signed information sheet to the researcher as you leave.”*

## **Script 5: Phase II, Relational Breach, Relational Substitution**

*The following information is read to students at the beginning of Phase II after consent forms have been filled out and any questions regarding the consent form have been answered:*

Welcome back!

You will need to access the website [www.campussolutions.org](http://www.campussolutions.org) again and click on the *Surveys* link.

Your group has unfortunately been randomly selected to take part in Survey X, which does not permit you to use the Internet for assistance with tasks during this phase. So, please **DO NOT** use the Internet during this phase.

*The researcher writes: “You CANNOT use the Internet during Phase II” at the front of the room. The researcher waits for subjects to read and understand the new conditions.*

In order to “make this up to you”, I have replaced some of the original tasks with easier tasks, which should help you to get everything finished within the hour. You will see that these new tasks were uploaded during your break.

*The researcher writes: “Some tasks have been replaced with easier tasks – take advantage of these,” at the front of the room.*

The performance stipulations remain the same as they were in Phase I, so again, put forth your best effort.

If you would no longer like to take part in this study now that you know that you cannot use the Internet, you may leave and will receive .20 points for Phase II simply for taking part in the study up until this point. If you would like to leave, please print your name at the bottom of your information sheet and turn it in.

*The researcher waits for students to respond. If there is disagreement, the researcher clears up any open questions about the study conditions. If a subject decides to no longer take part in Phase II, they are asked to turn in their consent forms and to leave.*

Please be sure to follow the instructions for Survey X as they are listed on the Campus Solutions website. You can get started with the first task in Survey X now.

*Students are not directly told that they may leave the study when they are finished with all tasks. When the first student finishes and asks the researcher what he or she should do next, the researcher tells him or her that she may leave when finished. This information is then announced to the class.*

## **Script 6: Phase II, Relational Breach, Transactional Substitution**

*The following information is read to students at the beginning of Phase II after consent forms have been filled out and any questions regarding the consent form have been answered:*

Welcome back!

You will need to access the website [www.campussolutions.org](http://www.campussolutions.org) again and click on the *Surveys* link.

Your group has unfortunately been randomly selected to take part in Survey X, which does not permit you to use the Internet for assistance with tasks during this phase. So, please **DO NOT** use the Internet during this phase.

*The researcher writes: "You CANNOT use the Internet during Phase II" at the front of the room. The researcher waits for subjects to read and understand the new conditions.*

In order to "make this up to you", I have listed extra tasks for Phase II. Now you have twice as many chances to earn the minimum number of points that you will need in order to earn the credit point for this phase. You will see that these extra tasks were uploaded during your break.

*The researcher writes: "More tasks = twice as many chances to get minimum number of questions correct - take advantage of these extra tasks," at the front of the room.*

The performance stipulations remain the same as they were in Phase I, so again, put forth your best effort.

If you would no longer like to take part in this study now that you know that you cannot use the Internet, you may leave and will receive .20 points for Phase II simply for taking part in the study up until this point. If you would like to leave, please print your name at the bottom of your information sheet and turn it in.

*The researcher waits for students to respond. If there is disagreement, the researcher clears up any open questions about the study conditions. If a subject decides to no longer take part in Phase II, they are asked to turn in their consent forms and to leave.*

Please be sure to follow the instructions for Survey X as they are listed on the Campus Solutions website. You can get started with the first task in Survey X now.

*Students are not directly told that they may leave the study when they are finished with all tasks. When the first student finishes and asks the researcher what he or she should do next, the researcher tells him or her that she may leave when finished. This information is then announced to the class.*

## **APPENDIX G: Study Measures**

Unless otherwise stated below, all items were assessed using a 100 point Likert scale on a sliding ruler as this method proved to be most effective during the pilot studies. All items were measured on a Likert scale from (0) strongly disagree to (100) strongly agree. Please note that many items were adapted from their original sources to better fit this experimental study context.

### **Affect (Wayne and Ferris, 1990)**

1. If I had the opportunity, I would recommend this study to a friend.
2. Working for this organization would be enjoyable.
3. I like this organization.

### **Trust (Gabarro and Athos, 1976)**

1. I trust the representative who carried out this study today.
2. I believe that Campus Solutions' motives and intentions are good.
3. During this study, Campus Solutions has been open and upfront with me.
4. I trust this organization.

### **Relational Psychological Contract (Rousseau, 2000)**

1. I would protect Campus Solution's image when talking to others about this study.
2. I feel as though Campus Solutions and its representatives have concerns for my personal welfare.
3. Participating in this study actually means more to me than just a source of credit in my course.
4. I expect Campus Solutions to reciprocate the effort that students put into their tasks.
5. I take the concerns of Campus Solutions and its representatives seriously.



6. If given the chance, I would consider working for Campus Solutions in the future.
7. I feel like this organization would make decisions with my best interests in mind.
8. Campus Solutions and its representatives are offering me class credit that I can count on receiving.

**Transactional Psychological Contract (Rousseau, 2000)**

1. I only fulfilled the minimum requirements needed to get class credit for participating in this study.
2. Campus Solutions demanded more of my attention and involvement in the study than I expected.
3. If I had felt like it, I would have left this study at any time I wanted.
4. I do not identify with this study or this research.
5. I only did what I had to do to get the class credit.
6. During this session, I had limited involvement with the Campus Solutions Representative.
7. During the session, the Campus Solutions representative took an interest in students' concerns.

**Perceived Organizational Support (Eisenberger, Huntington, and Hutchison, 1986)**

1. Campus Solutions and its representatives value my contribution to the study.
2. If Campus Solutions could offer less credit for study participation, they would.
3. Campus Solutions representatives went out of their way to make it possible for me to get this supplemental activity credit.
4. The organization and its representatives try to make the tasks as interesting as possible.
5. Campus Solutions is concerned with my general sense of satisfaction during this study.

6. Even if I gave my best effort on the tasks, the Campus Solutions representatives would fail to notice.

**Leader-Member Exchange** (Graen and Uhl-Bien, 1995; Duchon, et al., 1986)

1. I felt like I could count on my representative to help me out when I needed it.
2. The Campus Solutions representative interacted well with the students.
3. This representative helped students solve any problems they had.
4. This representative gave us feedback about our tasks.
5. He or she understands the value of the information only students like me can provide.
6. He or she respects the time I am investing in this study.
7. The working relationship between the students and the representative was effective.

**Perceptions of Breach** (Robinson and Morrison, 2000)

1. Campus Solutions kept all of the promises it made to me at the start of this study.
2. Campus Solutions broke its promises to me even though I upheld my side of the deal.
3. In exchange for my participation, Campus Solutions did an excellent job of fulfilling its promises to me today.

**Perceptions of Violation** (Robinson and Morrison, 2000)

1. I feel a great deal of anger towards Campus Solutions and its representatives.
2. I feel that Campus Solutions violated the agreement between us.
3. I felt betrayed by my Campus Solutions representative.
4. I feel extremely frustrated by this study.

**Self-Reported Task Performance** (Williams and Anderson, 1991)

1. I adequately completed the tasks I was assigned in this study.

2. I fulfilled the requirements of this study that were described to me by the Campus Solutions representative.
3. I performed all of the tasks that were expected of me.

### **Self-Reported Cyberloafing**

Slide the ruler below to the rating that best applies to you for each statement.

- (0) Never
- (2 -3) Less than 3 times.
- (4 - 5) About 5 times.
- (6 - 8) More frequently.

During *Phase II* of this study...

1. I went to websites that were not related to this study.
2. I checked my Facebook® account or some other social networking site.
3. I wrote or received a text message.
4. I checked my email.

## APPENDIX H: Annotated List of Figures

**FIGURE 3.1** Theoretical Model ..... 49

This figure depicts an overview model of the study, which includes the study's important constructs and shows how they relate to each other. In addition, the hypotheses are placed by number in the construct to construct relationships that they examine.

**FIGURE 4.1** Overview of Study Procedures and Manipulations ..... 55

This figure summarizes the individual procedures and manipulations that make up both Phase I and Phase II of the experiment. The items are broken down by manipulation, task, and both manipulation check and outcome measures for each experimental phase.

**FIGURE 4.2** 2X4 Overview of Study ..... 66

This figure depicts a summary of all study treatments by both manipulation 1 (the underlying psychological contract that is manipulated in Phase I) and by manipulation 2 (the breach treatment that is manipulated in Phase II).

**FIGURE 5.1** Hypotheses 1a and 1b: Subjects' Mean Perceptions of Breach Following No Breach, Withdrawal Breach, and Substitution Breach ..... 82

This figure graphically depicts a comparison of the mean results of the treatments examined in conjunction with hypotheses 1a and 1b.

**FIGURE 5.2** Hypotheses 2a and 2b: Subjects' Mean Feelings of Violation Following No Breach, Withdrawal Breach, and Substitution Breach ..... 84

This figure graphically depicts a comparison of the mean results of the treatments examined in conjunction with hypotheses 2a and 2b.

**FIGURE 5.3** Hypothesis 3a: Subjects' Mean Perceptions of Breach in the Transactional Treatments ..... 87

This figure graphically depicts a comparison of the mean results of the treatments examined in conjunction with hypothesis 3a.

**FIGURE 5.4** Hypothesis 3b: Subjects' Mean Perceptions of Breach in the Relational Treatments ..... 90

This figure graphically depicts a comparison of the mean results of the treatments examined in conjunction with hypothesis 3b.

**FIGURE 5.5** Hypothesis 4a: Means of Feelings of Violation in the Transactional Treatments 93

This figure graphically depicts a comparison of the mean results of the treatments examined in conjunction with hypothesis 4a.

**FIGURE 5.6** Hypothesis 4b: Subjects' Means of Violation in the Relational Treatments ..... 96

This figure graphically depicts a comparison of the mean results of the treatments examined in conjunction with hypothesis 4b.

**FIGURE 5.7** Mean Perceptions of Breach by Congruence of Resource Substitute ..... 97

This figure graphically depicts a comparison of the mean results of perceptions of breach for both congruent and incongruent resource substitutes in both the transactional and relational treatments.

**FIGURE 5.8** Mean Feelings of Violation by Congruence of Resource Substitute ..... 98

This figure graphically depicts a comparison of the mean results of feelings of violation for both congruent and incongruent resource substitutes in both the transactional and relational treatments.

## APPENDIX I: IRB Letter of Permission

### MEMORANDUM

**DATE:** September 19, 2011

**TO:** Anthony T. Cobb, Gretchen Schaupp

**FROM:** Virginia Tech Institutional Review Board (FWA00000572, expires May 31, 2014)

**PROTOCOL TITLE:** An Experimental Study of Psychological Contract Breach: The Moderating Role of Exchange Congruence

**IRB NUMBER: 11-497**

Effective September 12, 2011, the Virginia Tech Institutional Review Board, at a convened meeting, approved the amendment request for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at <http://www.irb.vt.edu/pages/responsibilities.htm> (please review before the commencement of your research).

**PROTOCOL INFORMATION:**

Approved as: **Full Board Review**

Protocol Approval Date: **6/13/2011**

Protocol Expiration Date: **6/12/2012**

Continuing Review Due Date\*: **5/28/2012**

\*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

**FEDERALLY FUNDED RESEARCH REQUIREMENTS:**

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals / work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee. The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.