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THE CONSTRUCTS OF TRUST IN CLOSE INTERPERSONAL RELATIONSHIPS

A DISSERTATION APPROVED FOR THE DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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This manuscript is dedicated

To

Otis Norman Shands, Jr.,

my father who has lived a life of faith, purpose, and courage.

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Abstract

While most would agree that trust is an essential element of healthy relationships and families, there is widespread disagreement regarding the most important aspects of trust. Researchers disagree about the definitions of this very important aspect of relationship and few studies have specifically explored trust as it relates to our close interpersonal relationships. In addition, most studies on this important issue are conducted with convenience samples of undergraduate college students. This study attempted to address the convenience sample issue by recruiting a large sample with a broader range of age, marital status, time in relationship, socioeconomic status, education, and ethnicity. Also, with improved technology, a larger sample was obtained through the use of the Internet. The resulting 605 participants represented undergraduate psychology courses, graduate students, a large representation of older, non-traditional students, as well as retired persons with long-term relationships. Participants were either presented pencil and paper surveys to complete or on line surveys as well as demographic data and several rankings of the importance they placed on relationship trust, level of relationship trust, mutuality, and satisfaction. Duplication of previous research emerged with three factors of trust from The Trust Scale which were Faith, Dependability, and Predictability. When another survey, The Relationship Confidence Scale was added, another factor emerged and was named "Benevolence". Additional results revealed strong correlations between subjects' scores and Total Trust. This study explored the constructs that are most closely correlated to trust and then extended the study to examine the relationships between those constructs and anxious, avoidant, and secure attachment

styles. Significant results at the .001 level were found in the associations between total trust and the constructs of Faith, Dependability, Predictability, and Benevolence. The constructs of Faith, Dependability, and Benevolence were found to be significant predictors of Total Trust. Additionally, Total Trust was significantly associated with Secure Attachment style, significantly and negatively correlated with Avoidant attachment style but not significantly associated with Anxious Attachment Style. There was not a significant relationship between education level and trust. Together, the four constructs accounted for more variance in Total Trust than in attachment style and Faith accounted for most of the unique variance in Total Trust. The implications for use of these results in therapeutic relationships, couple and family counseling are also discussed.

The Constructs of Trust in Close Interpersonal Personal Relationships

Introduction

Chapter One

The concept of *trust*, specifically as it relates to our closest and most valued relationships, would appear at first glance as such a valued and necessary construct that one might argue the importance of studying its anatomy empirically. However, researchers have often been unable to agree on a definition of trust or its constructs. The question then becomes what is trust and what aspects of trust are necessary within the context of our close interpersonal relationships? Over the last four decades, very few surveys or trust scales have been developed nor has trust received the attention that has been afforded other research. One must wonder what gives impetus to the desire to examine these constructs.

Trust is often mentioned in conjunction with love and commitment as a cornerstone of the ideal relationship (Hendrick & Hendrick, 1983). Trust is not only the cornerstone of healthy relationships but damage to trust is correlated with relationship decline and or demise (Lewiki & Bunker, 1985). The characteristics of a trusting relationship are enjoyment, mutual assistance, respect and understanding, somewhat like a friendship (Lau and Rowlinson, 2009). The philosopher Baier (1986) has observed that we notice trust as we notice air, only when it becomes scarce or polluted. According to Fukuyama (1996), trust is critical for social interactions and efficient economic systems. Given that trust is

accorded such an esteemed position, is it surprising that there is comparatively little focus on this concept in the research literature (Remple, Holmes & Zanna, 1985). Although trust appears to be such an important part of close relationships, in a study examining why couples enter couple therapy, trust was not mentioned as one of the main reasons given on intake (Doss, Simpson, & Christensen, 2004). This may be partially due to couples' lack of information regarding the role of trust in relationship and what comprises trust in these close relationships.

"Trust" is a key concept that plays an important role in many social situations ranging from interpersonal relationships to economic exchange. Throughout the literature on trust, there have been numerous approaches taken to the topic including social, psychological, political, economic, personality, and religious. However, many of these approaches have looked at trust more globally or not in reference to our closest personal relationships. Few have attempted to identify the factors, components, or constructs of trust within these relationships. Also, the vast majority of studies on the topic have been conducted utilizing convenience samples of college students with limited experience in close relationships. Developmentally, these subjects are moving from adolescent stages of development into young adulthood and beginning to establish their autonomy, which precedes intimacy (Moshman, 1999). The current study will attempt to tease out the most important constructs of trust within our close relationships. Those constructs will then be used to examine the relationship that they have with trust as a whole and with attachment style. Attachment research has long supported the notion that our attachment relationships or "style" play a large role

in our adult relationships and their quality (Bowlby, 1982 A large, community sample will add to the generalisability of the results and include a much broader range of age and time in relationship.

Current Study

Problem Statement

Researchers agree that interpersonal trust is a phenomenon specific to a relationship or a relationship partner rather than a generalized tendency towards trusting others (Driscoll, Davis, & Lipetz, 1972; Holmes, 1991; Holmes & Rempel, 1989; Larzelere & Huston, 1980; Rempel, Holmes, & Zanna, 1985); however, researchers have had difficulty in agreeing on definitions of trust or the constructs of trust (Anderson & Dedrick, 1990; Rotter, 1967). This study will attempt to study individuals' trust in reference to but not within their close relationships. There is also little agreement among researchers regarding the many factors, which were assessed on the bases of different definitions. Many factors have actually been used interchangeably in terms of meaning. For example: faith and belief, dependability and trustworthiness, predictability and dependability, and benevolence with willingness to help have been used interchangeably. Inconsistency of terms and variables make it confusing and also hinders other researchers in conducting studies related to trust. It is important, therefore, to develop a more parsimonious and readily agreed upon approach to this research in which factors are identified and relationships between these variables and trust can be understood.

The exploration of trust factors is critical to the understanding of couples, families and child development. Based on previous research on trust, the study evaluates four primary constructs: faith, dependability, predictability, and benevolence. These constructs have been correlated in previous research to trust in general and to the prediction that one can be counted on to behave a certain way in a relationship. The study also explores the possibility of these constructs being correlated with attachment style which has been shown to be salient to relationship stability and quality (Bowlby, 1982). The goal of the study was to further the work of development and enhancement of both theory and interventions that can increase the health and stability of interpersonal relationships. Additional goals of this study were to illustrate the strength of each variable's relationship to the global concept of trust and to each other and to examine how constructs of trust that are established cluster around types of attachment style.

The motivation for this study was grounded in a desire to expand our understanding of possible factors or constructs that underlie trust in our closest interpersonal relationships in order to improve the quality of these relationships.

Purpose of the Study

The purpose of the study is to attempt to fill a gap in the literature in that trust in our closest relationships has been an understudied phenomenon. The study will attempt to define not only trust, but deconstruct the concept into its components or constructs as a way of understanding aspects of our close relationships. Beyond the task of looking at these constructs or factors, I further

wish to examine what aspects of life experiences that relate to our style of attachment cluster around the constructs of trust identified. The study also explores the possibility of these constructs being predictive measures of attachment style and level of trust experienced in close relationships. Results of the study may add to the evidence for validity and reliability of some of the instruments utilized to measure trust. The goal of the study is to further understand the psychological constructs that underlie trust. It will attempt to add to the work and knowledge about trust in our close interpersonal relationships in the hope that it will benefit couples, marriages, children's lives, relationships in general and society as a whole. Additional implications for the practice of psychotherapy will be explored in terms of clinical and client trust in interpersonal relationships and their implications for mental health.

The theoretical underpinnings of the research will involve a theory of interdependence in close relationships and the role that the constructs of trust play in such interdependence as well as theories of attachment style and the constructs of trust.

Research questions:

Research question one: Do the factors gleaned from the two trust scales measure different aspects of trust or highly correlated to each other?

Research question two: Are persons with high levels of trust in close relationships more likely to exhibit a secure attachment style while those with low levels of trust in close relationships more likely to exhibit anxious or avoidant styles?

Research question three: Are specific constructs of trust more closely related to attachment style than other constructs?

Research question four: How is information about attachment style and trust important in the therapeutic environment and relationship?

In addition to the above listed research questions, several hypotheses are tested:

Hypothess1: That the three constructs of trust theorized by Remple and Holmes of faith, predictability and dependability would again emerge as the three strongest factors when the Trust Scale is subjected to factor analysis.

Hypothesis 2: That the items on the Trust Confidence Scale, when subjected to factor analysis, would result in additional, and perhaps different, constructs of trust.

Hypothesis 3: That when the two measures are combined and subjected to factor analysis, four factors will emerge which will be faith, predictability, dependability and benevolence, as was obtained in an earlier pilot study.

Hypothesis 4: That due to the increase in sample size and power, the strength of these emerging factors will be enhanced and more accurately generalized.

Hypothesis 5: That when The Experiences in Close Relationships – Revised (ECR-R) questionnaire is added to the study, trust factors will predict attachment styles, specifically anxious, secure, and avoidant styles.

Hypothesis 6: There will be a positive relationship between trust and education level.

Hypothesis 7: There will be a positive relationship between individual's total trust scores and faith, predictability, dependability and benevolence.

Hypothesis 8: Compared with predictability, dependability and benevolence, faith will account for most of the variance in trust.

Hypothesis 9: Together faith, predictability, dependability and benevolence will account for more variance in trust than attachment style and Faith will again emerge as the strongest predictor of Total Trust.

Review of the Literature

Chapter Two

History of the Constructs of Trust

One of the earliest mentions of a measure of trust in the research was not really a measure of trust but a study of misanthropy, which reflects distrust or dislike of humans in general (Rosenberg, 1956). The first actual scale designed to measure trust was developed in the 1960s by Julian Rotter, in response to a generation of young people who had become disillusioned and suspicious of authority. It is somewhat ironic that the early research on trust was spawned in response to distrust and suspicion during the cold war. He developed a scale to measure trust (Interpersonal Trust Scale, 1964). Over time, his study of trust then changed to an individual focus generalized as a personality trait (Rotter, 1967). Rotter's studies were conducted utilizing college students, as were many of the studies in that era. Eventually, the results obtained with the Interpersonal Trust Scale were viewed as being greatly affected by social desirability, yielding more

information about how one viewed political structures, and were criticized for the use of a convenience sample. Despite these difficulties with the early research, Rotter is one of the most cited in much of the literature on trust. Also with the advent of one of these earliest scales to measure trust, (Rotter, 1971, 1980), an attempt was made to define trust as a construct. He utilized a definition that reflected expectancy held by an individual or group that the word, promise, verbal or written statement of another individual or group could be relied on (Rotter, 1971, 1980). Another definition utilized in the literature outlines that "trust exists to the extent that a person believes another person (or persons) to be benevolent and honest" (Lazelere & Hudson, 1980). This was the basis for the Dyadic Trust Scale, which was developed for use in research on interpersonal trust in close relationships. Also a self report measure, items were adapted from previous research and modified to fit the concept of dyadic trust. An examination of the items reveals that the rater is to respond to statements about one's partner, but not one's self.

In their conceptualization of trust, Holmes and his colleagues (Rempel, Holmes, & Zanna, 1985) identified three components of trust: predictability, dependability, and faith.

Faith refers to beliefs that partners will be responsive to individuals' needs whatever the future may hold. Predictability refers to beliefs that partners are predictable and stable. Dependability refers to beliefs that partners are reliable and can be counted on to fulfill promises to others. Although the component of faith most closely captured the positive expectations about partners' future

responsiveness, predictability and dependability also supports the notion that individuals hold expectations that their partners will be responsive to their needs in the future.

Although the Rempel, Holmes, and Zanna (1985) study conceptualized trust in terms of three components (i.e., predictability, dependability, and faith), the essence of the researchers' additional definitional elements of trust, that individuals attribute partners' motives as benevolent and honest, is embedded within the items that capture these three components. A few examples will illustrate how this study indirectly supports the additional definitional element of trust as a fourth component. The item used to assess the faith component, "Whenever we have to make an important decision in a situation we have never encountered before, I know my partner will be concerned about my welfare," suggests that individuals believe that their partner's motives are benevolent because they know that in new situations of conflicting interests, partners will take into account individuals' needs. A reverse-scored item used to assess dependability, "In our relationship I have to keep alert or my partner might take advantage of me," implies that individuals' do not believe partners' motives are benevolent, but malevolent, and that they must be vigilant in order to avoid being exploited by the partner. Lastly, another item used to assess dependability of partners, "Even when my partner makes excuses which sound unlikely to me, I am confident that he/she is telling the truth" implies that partners are motivated by honesty and sincerity and would not purposely try to deceive individuals. These items illustrate that the concept of attributing partners' motives positively, in terms of benevolence and honesty, is supported in the wording of the items despite the fact that this conceptualization did not explicitly articulate these beliefs.

These authors also proposed the aspects of trust to be developmental in that the first stage of developing trust is associated with the partner's predictability. The next level of trust would come with establishing the dependability of that partner which comes from experience with the partner being reliable and counted on. The final level of development involves faith which comes from belief in the person from experience of who they are over time and how they can be expected to act in the future.

Definitions of global concepts and specific constructs.

Researchers acknowledge trust as a complex and multifaceted concept. However, some of the difficulties with studying this important and complex dynamic have reflected disagreement about what trust is. The struggle to agree on the aspects of trust that are important to study and how to define them operationally has been long and arduous. Disagreement about the definitions of trust has been documented extensively.

One of the earliest published definitions of trust based on a scale developed to measure trust was proposed by Julian Rotter (1967, 1971) and his colleagues using the Interpersonal Trust Scale (ITS). Rotter (1971), who was referenced earlier, defined interpersonal trust as a person's generalized expectancy "that the word, promise, verbal, or written statement of another individual or group can be relied on" (p.444). Definitions that have been utilized are numerous: "a psychological state comprising the intentions to accept vulnerability based on positive expectations of the intentions or behavior of another (Rousseau, Sitkin, Burt, & Camerer, 1988 cited in Kim, Ferrin, Cooper, Dirks, 2001). These authors decided to refer to two "elements" of trust as *trusting*

intention and *trusting beliefs.* This study would consider these two elements as factors or constructs around which these authors build their study. They state that *trusting intention* is "a willingness to make oneself vulnerable to another in the presence of risk" (Kim et. al., p.105) and *trusting belief* refers to "the beliefs about another's integrity or competence that may lead to trusting intentions" (p.105).

Mayer, Davis and Schoorman (1995) attempted to alleviate these problems, especially the parsimony of variables. Previous researchers had attempted to assess as many variables as possible given the complex nature of the concept. However, Mayer, Davis and Schoorman attempted to tease out the fundamental variables and identified four variables, three characteristics for the trustee and one variable for the trustor. These were considered personality characteristics and were labeled as benevolence, ability, and integrity. The only variable for the trustor was the person's propensity to trust. Mayer, Davis, and Schoorman (1995) claimed that they had presented clear definitions of trust and a parsimonious set of determinants [of trust] (p. 729) however, their model has yet to be tested and the extent of the relationship between each of the variables and trust is not determined.

Ironically, throughout some of the earliest literature, this author found reference to an early measure referred to as the "faith in people" index or scale. It is a five-question instrument that was not originally intended to be a measure on trust but "misanthropy" which means dislike or distrust of others. In order to position the respondents along the 'faith in people' dimension, a Guttman scale of

five items was constructed. (Rosenberg, 1956). See Appendix I for the exact content of the five items. The first item reads: "Some people say that most people can be trusted. Others say you can't be too careful in your dealings with people. How do you feel about it?" (Rosenberg, 1956, p. 690). It was claimed that the Guttman scale was not a study of political views but stated that there was a tendency to overlook the fact that attitudes toward human nature may have some bearing on individual's political attitudes and behaviors. For those of us who study psychometrics, we will remember that the Guttman scale was originally designed to determine whether a set of attitude statements is one dimensional. Respondents who agree with a certain statement of an attitude will also agree with milder statements of that attitude along a continuum (Annastasi & Urbina, 1997). Rosenberg claimed a coefficient of "reproducibility" of the "faith in people" scale of 92%, test-retest reliability in our terms (Anastasi & Urbina, 1997). Although fairly simple and straightforward, test-retest reliability presents problems when applied to most instruments such as practice effects, maturation, or other changes in subjects over time (Anastai & Urbina, 1997). Also, virtually all students of psychometrics would not condone the use of a one-item measure of any attitude as it would truly violate one of the basic earmarks (pillars) of ethical testing (Sattler, 1982). Even if the use of one item was seen as acceptable in terms of content validity, additional problems arise. According to Miller and Mitamura, (2003), the widely used one item from the "faith in people" scale does not represent a continuum along which participants would fall between "trust" or "faith" and "distrust" or absence of "faith". Instead, participants choose between

trust and caution, which they contend presents two dichotomous factors rather than a continuum. They concluded from their study that results based exclusively on a student population is difficult to generalize and that their study should serve as a warning about drawing conclusions based on a single survey question.

Yamagishi and Yamagishi (1994) found that measures of trust and those of caution or prudence create separate factors. They state that it is possible for a person to believe that most persons can be trusted but also exert caution in their dealings with people. The first half of the question "would you say most people can be trusted" asks for an evaluation of other people's trustworthiness and that the second half of the question regarding caution asks about one's own behavioral preferences rather than that of others (1994). Therefore, how one answers this one question "will depend on two factors: an assessment of other people's trustworthiness, and an assessment of one's own willingness to take risks" which will resurface in additional discussion of the literature. In spite of all of the obvious objections noted here, it was interesting to discover that the one item from the "faith in people" survey has been used on a national, international and global scale from 1980 to 2008. Global data may be obtained by accessing the Global Values Survey website at http://www.worldvaluessurvey.com/. It includes data from waves 1981, 1990, 1995 and 2000. Examination of the actual surveys reveals a variation on the one question item from the "faith in people" scale: "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" (World Values Survey, 1972).

Another example of a global survey, which attempted to evaluate if individuals could be trusted, is the American General Social Surveys (GSS) which polls individuals in the United States from 1972 until the present. The GSS is so widely used that it often influences what items are included in other surveys. This survey reveals a trend toward decline in trust and incline in distrust.

Rotter conducted another of the earliest attempts to study trust at a time when the nation was involved in a cold war and people lacked trust in their governments. As a result, the measure tended to look at trust very globally and it was heavily influenced by this general distrust rather than trust (Rotter, 1967). That being said, Rotter's scale, known as the Interpersonal Trust Scale (ITS), has been utilized widely in the evaluation of trust in many arenas and is a hallmark in research on trust.

Many studies have looked at trust between employer and employee in an organizational setting, between teacher and student, doctor and patient, inmate and guard and even more recently trust on the internet. Some have included trust between countries and trade agreements and others the recent trust violations which occurred between banks and the American people and their government. Some have referred to these types of trust as interpersonal, dyadic, organizational, or political. For this study, interpersonal trust in our close personal relationships is the focus. However, throughout the literature, dyadic and interpersonal trusts have been used interchangeably (Schumm, Bugaighis, Green, & Scanlon, 1985; Schindler & Thomas, 1993; Larzelere & Huston, 1980; Boss, 1985; Butler & Cantrell, 1984).

Many studies focus on different or slightly different schools of knowledge or social theories. On the other hand, some cover more than one field, for instance McAllister, (1995) discussed both organizational and psychological issues. Moorman, Deshpande, and Zaltman (1981) studied both managerial and organizational trust. Hart, Capps, Cangemi, and Caillouete (1986) attempted to cover interpersonal and organizational trust in one study.

Many personality theorists and researchers have focused on trust as a personality characteristic such as propensity to trust, willingness to trust, trustworthiness, dependability, predictability, self-esteem and self-monitoring. Some global measures of trust are not reliably associated with the trust experienced in specific relationships (e.g., Holmes, 1991; Tardy, 1988).

Propensity to trust relates to a component of personality as one's trusting personality. Also, propensity to trust is hypothesized to have been derived by behaviors of important people in one's past (Currall, 1992). Therefore, as with psychodynamic and social learning theories, one's past experiences tend to determine one's faith in people in general. This faith will need to apply when one has to trust another in the future. Exactly how much one trusts others in general affects one's intention in trusting. According to Good, 1988, people with a trusting personality may be more liked by other people. Also, people with a trusting personality will be less likely to lie, cheat or steal. Rotter, (1967) stated that those who trust others are more trustworthy or cooperative.

Measurement of Trust and Attachment

The earliest works on attachment theory are attributed to Bowlby who hypothesized that an attachment system evolves in infancy and childhood to maintain proximity between infants and their caretakers under conditions of danger or threat (Bowlby, 1977). Attachment theory proposes "the propensity of human beings to make strong affectional bonds to particular others" (Bowlby, 1977, p. 201). According to Bowlby's theory, children, over time, internalize experiences with caregivers in such a way that these early experiences in relationships come to form a template or prototype for other relationships outside the family structure in their later life. Bowlby (1973) identifies two essential and key features of these internalized prototypes or *working models* of attachment: "(a) whether or not the attachment figure is judged to be the sort of person who in general responds to calls for support and protection; and (b) whether or not the self is judged to be the sort of person towards whom anyone, and the attachment figure in particular, is likely to respond in a helpful way" (p. 204). The first of these key features involves the child's image of other people and the second, the child's image of the self.

Attachment researchers have established a link between attachment and relationship satisfaction (Hazan & Shaver, 1987). According to Feeney, Noller, and Hanrahan, (1994) attachment style is likely to exert a very pervasive influence on the individual's relationships with others, because it reflects general views about the rewards and dangers of interpersonal relationships. It is possible, however, that this influence may be especially salient in the context of intimate relationships.

Other authors viewed the attachment system as functioning continuously to provide a sense of "felt security" within which a child would feel safe to explore the world around him or her, others, and themselves (Ainsworth, Blechar, Waters, & Wall, 1978). Ainsworth studied infants' responses to separation from and reunion with key caregivers in a laboratory procedure. Through these experiments, Ainsworth identified three patterns of infant attachment: secure, anxious-resistant, and avoidant. Children classified as securely attached welcome their caretaker's return after separation and, if distressed, seek proximity and are readily comforted. Infants classified as anxious-resistant show ambivalent behavior toward caregivers and an inability to be comforted on reunion. Children with an avoidant attachment style would avoid proximity or interaction with their caregiver when reunited.

In a 1991 study, Bartholomew and Horowitz studied attachment styles in young adults in an attempt to test what they considered to be a "new" four category model of attachment in adults which has been used extensively since. Their publication reports on two studies. In study one, forty female and thirty seven male students constituted their sample. They ranged in age from 18-22 with a mean age of 19.6; 67% white, 16% Asian, 5% Hispanic, 8% Black and 4% other. Equal numbers of men and women were randomly selected from the pool of subjects and contacted by phone. The authors administered a semi-structured interview asking subjects to describe friendship patterns. Their responses were used to assess the degree to which each subject came close to each of the four styles proposed in their model of adult attachment (Figure 1).

The Interpersonal Trust Scale (Rotter, 1966) has been validated in a number of laboratory settings and is still often referred to in current research. Some of the findings of this research using the ITS have been that high trustors are more trustworthy (less likely to lie) with experimenters in debriefing after an experiment (Geller, 1966), with peers in games (Hamsher, 1968), and are rated by their peers as more trustworthy (Rotter, 1967) than are low trustors. Other differences between high and low trustors were reported by Roberts in 1967 who found that high trustors are more trusting of experimenters, of peers in Prisoner's Dilemma games (Schlencker, Helm & Tedeschi, 1973; Wright, 1972), of peers in a Gestalt trust walk (Zoble, 1971), and are rated by their peers are more trusting (Rotter, 1967) than low trustors.

Honreich and Rotter (1970) found that ITS items related to "national and international politics, ability to keep peace in the world, and the trustworthiness of the communications media" (p.211) dropped significantly over a 6 year period of time at the University of Connecticut and contributed to the significant although gradual and consistent decline of ITS scores. This evidence led Roberts (1971) to suggest that distinct dimensions of trust could be isolated in two subscales within the ITS that were homogeneous and independent – political trust and peer trust. He used student judges to distinguish between items that focus on "interactions between people of approximately equal rank or status" (peer trust) and items concerned with "interactions between average people and powerful people and institutions" (p. 14).

In 1975, Wright and Tedeschi (1975) conducted a factor analysis of the ITS using four large samples of respondents to Rotter's scale from two universities: the University of Connecticut and the University of Ohio. The results of their factor analysis yielded four factors that accounted for at least 69% of the common variance (Wright & Tedeschi, 1975). Of these four factors, Political Trust, Paternal Trust, and Trust of Strangers, cross-validated over the four samples and were determined to be the most stable. The authors indicated that future research would be needed to determine whether their factor structure would also be present in samples of non-college populations (Wright & Tedeschi, 1975). Additionally, the measure appeared to be highly influenced by social desirability which is the desire on the part of persons to be seen in a positive light. Therefore, being a "trusting person" would be seen as positive and influenced their responses to the measure. They also questioned the social desirability of the Paternal Trust factor because of positively worded items (Wright & Tedeschi, 1975).

Clinical Implications of Studying Trust

Michael Gurtman (1992) studied self reported interpersonal problems from individuals that scored as high trustors or low trustors on the Interpersonal Trust Scale (ITS), (Rotter, 1967); the Survey of Cynicism (Kanter & Mirvis, 1989); the Mach IV Scale (Christie & Geis, 1970; Robinson & Shaver, 1973) and the World Assumptions Scale (Janoff-Bulman, 1989). Gurtman explained that, as used in his study, "Interpersonal problems refer to self-described difficulties that individuals have in relating to others and that cause or are related to significant

distress" (p.989) as measured by the Inventory of Interpersonal Problems (IIP) (Gurtman, 1987) and (Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988). He concluded that high trustors are relatively free of interpersonal difficulties and low trustors report a predictable pattern of interpersonal difficulties. Persons with high trust in others had less severe interpersonal problems than persons with low trust. Counter to interpersonal theory, extreme trust was not correlated with gullibility. Gurtman suggested that gullibility may be related to an interpersonal dimension other than trust, such as dependence. People with little trust in others experienced behavioral problems characterized by underlying hostility and dominance. Thus, low trustors experienced primary interpersonal problems related to competitiveness, envy, resentfulness, vindictiveness, and lack of feelings toward others (Gurtman, 1992). Additionally, trusting individuals are more likely to react in a benevolent manner to later acts of partner betrayal (Hannon, Childs, & Rusbult, 1999).

In a study that was intended to examine organizational trust and betrayal, Lewicki and Bunker (1995) described their conceptualization of "stages" of trust and coined terms for trust "level". The bases of trust represent stages that are hierarchical and sequential, such that as relationships develop, higher and more complex levels of trust are attained. Trust at the most basic level is described as calculus-based trust (CBT); (Lewicki & Bunker, 1995), and applies to arms-length exchanges in strictly professional relationships. The authors defined CBT as "an ongoing, market-oriented, economic calculation whose value is determined by the outcomes resulting from creating and sustaining the relationship relative to

the costs of severing it" (1995, p.145). They specified that CBT is founded on ensuring the other's consistency through "costs for inconsistency" (p. 153).

On the other hand, trust at the highest level of an interpersonal relationship is described as identification-based trust (IBT); it is derived from a richer and more complex understanding of the other, and an internalization of the other's desires and intentions (Lewicki & Bunker, 1995; Shapiro et al., 1992). Compared to CBT relationships, IBT relationships are more emotionally grounded, relationship-focused, and derived from a sense of shared goals or values between the parties. IBT relationships are evident when individuals share the same values and attitudes, and have formed a close emotional bond with each other (Lewicki & Bunker, 1995).

The Role of Attachment

Attachment theory is being used by an increasing number of researchers as a framework for investigating adult psychological dynamics and especially relationship dynamics. For instance, many researchers use this framework to study the continuity of close-relationship patterns over time (Baldwin & Fehr, 1995; Fraley, Waller & Brennan, 2000; Klohen & Bera, 1998; Scharfe & Bartholomew, 1994; Waters, Hamilton, Weinfield, & Sroufe, in press). Given the diverse scope of questions addressed in attachment research, it is necessary to ensure that measures of adult attachment are as precise as possible. Until recently, however, adult attachment measures have suffered from a number of psychometric limitations (Brennan, Clark, & Shaver, 1998; Fraley & Waller, 1998; Griffin & Bartholomew, 1994). To determine whether existing attachment

scales suffer from scaling problems, an item response theory (IRT) analysis of 4 commonly used self-report inventories was conducted: Experiences in Close Relationships scales (Brennan, Clark & Shaver, 1998), Adult Attachment Scales (Collins & Read, 1990), Relationship Styles Questionnaire (Griffin & Bartholomew, 1994) and Simpson's (1990) attachment scales. Results indicated (IRT) analysis of 4 commonly used self-report inventories was conducted: Experiences in Close Relationships scales (Brennan, Clark, & Shaver, 1998), Adult Attachment Scales (Collins & Read, 1990), Relationship Styles Questionnaire (Griffin & Bartholomew, 1994) and Simpson's (1990) attachment scales. Data from 1,085 individuals were analyzed using Samejima's (1969) graded response model. Findings indicated that three of the four measures exhibited undesirable features from an IRT perspective. The fourth measure (ECR) had the best measurement properties although the authors commented that this measure could also be improved using IRT for item selection. Due to these findings and the availability of the measure, the ECR was selected as the instrument to measure attachment style for this study.

Ainsworth, Blehar, Waters, and Wall (1978) performed significant research on attachment. They proposed a three factor model. Hazan and Saver (1987) also proposed a three factor model of attachment with the styles being secure, anxious and avoidant. Bartholomew and Horowitz in 1991 added another dimension and proposed a four factor mode of the self in attachment terms. Their styles were secure, preoccupied, dismissing and fearful. (See below). The current study will use the Ainsworth and colleagues, (Hazan and Shaver, 1987) secure,

anxious, and avoidant styles. Like personality, attachment style is seen as relatively stable over time and regardless of situation (Leveridge, et.al, 2005).

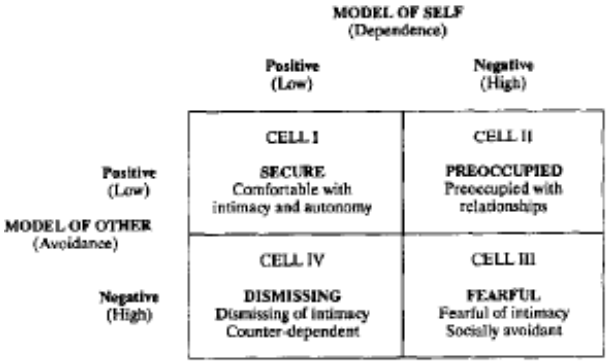


Figure 1. Model of adult attachment.

Fig. 1 Bartholomew and Horowittz (1991)

Dependency can also be conceptualized on the horizontal axis and the avoidance of intimacy on the vertical axis (Bartholomew & Horowitz, 1991). These results yielded important data relative to adults' relationships. The *secure* group obtained high ratings on the coherence of their interviews and the degree of intimacy of their friendships. They also received high ratings on warmth, balance of control in friendships, and level of involvement in their romantic relationships (Bartholomew & Horowitz, 1991). Conversely, individuals with an avoidant attachment style studied by Vickory and Haley (2007) exhibited distrust in others and made more detrimental choices in relationships regardless of their partner's behavior.

Another study that found personality correlates to attachment style was conducted by Leveridge, Stoltenberg, and Beesley (2005). They found that secure subjects were more extroverted and less neurotic than anxious subjects. Anxious subjects were slightly more neurotic, extroverted, and agreeable than avoidant

types. They did not find significant differences between the two insecure groups studied, however. A secure style was best predicted by low neuroticism and high extroversion, low anxiety and high warmth. Avoidant style participants were more likely to be low on agreeableness and high neuroticism (especially depression). They were also characterized by low scores on an "Openness to Feelings" subscale as well.

Consistent with research on the development and maintenance of trust, it is not as important whether the trustor has a high propensity to trust or whether the trustee is trustworthy, the continuity in infant attachment patterns seems to be mediated largely by continuity in the quality of the primary relationships (Lamb, Thompson, Gardner, Charnov & Estes, 1985). This importance of continuity may also be seen when anxious or avoidant individuals experience consistent support in a relationship with a securely attached individual. Over time, the avoidantly attached individual can begin to "unlearn" their expectations for negative relationship experiences and move closer to their partner increasing their level of commitment (Birnie, Mc Clure, Lydon, & Holmberg, 2009).

Given the descriptions of the secure, avoidant, and anxious/ambivalent styles, most research has postulated that roughly 60% of adults classify themselves as secure and the remainder to split fairly evenly between the two insecure types, with perhaps a few more in the avoidant than in the anxious/ambivalent category. In a summary of American studies of the three types of infants, Bartholomew and Horowitz (1991) concluded that 62% are secure, 23% are avoidant, and 15% are anxious/ambivalent. Given a diverse

sample of American adults, Hazan & Shaver (1987) thought it reasonable to expect approximately the same proportions. The current study focuses on the correlations between level of trust and secure, avoidant, and anxious/ambivalent attachment type within a large and diverse community sample.

Interdependence theory

The majority of theories in psychology attempt to explain behavior within the individual or intrapersonally. They do so by addressing individual biological makeup, traits of personality or mental/ cognitive processes. Interdependence theory, however; explains human behavior interpersonally suggesting that behavior should be understood by analyzing the fabric of interdependence in interpersonal situations.

Interdependence rather than dependency was supported by a study conducted by Pincus and Gurtman (1995) who used the interpersonal circumplex and the 5-factor model of personality as a structural framework to identify three factors of interpersonal dependency from the combined large pool of items used in self report measures of dependency to attempt to obtain a structural model. Then the relationship of these three structures to neuroticism (N), conscientiousness (C), and openness to experience (O) were examined. They found that; 1) all forms of interpersonal dependency are related positively with N, 2) exploitative dependency and submissive dependency are increasingly negatively correlated with C and O, however 3) love dependency is positively correlated with C and O.

In a 1999 study conducted by Wieselquist, Rusbult, Foster and Agnew on commitment, pro-relationship behavior, and trust in close relationships, the authors used two longitudinal studies to support their interdependence based model. Miller and Rempel (2011) state that that to their knowledge, this is the only study that examines how trust develops or declines. Wieselquist, et.al examined the associations among commitment, specific behaviors, and developing trust. This study moved the examination of commitment and trust into a more relational and mutual cyclical growth and development process by closely studying partner's decision making processes in the relationship. They proposed that partners come to trust each other when they perceive that partners have enacted pro-relationship behaviors, departing from the direct self interest for the good of the relationship. Through this mutual cyclical growth process a) dependence promotes strong commitment, b) commitment promotes pro-relationship acts, c) pro-relationship acts are perceived by the partner, d) the perception of pro-relationship acts enhances the partner's trust, and c) trust increases the partner's willingness to become dependent on the relationship (Wieselquist, et.al, 1999). These aspects of trust appear to be a function of ongoing relationship processes rather than attributions of the partner.

Additional evidence of the value of interdependence as opposed to dependency was obtained in a cross sectional survey study and a two wave longitudinal study designed to examine changes in individuals when they are committed to a close, romantic partner in a relationship revealed that strong commitment to a romantic relationship is associated with greater spontaneous

plural pronoun usage, greater perceived unity of self and partner, and greater reported relationship centrality. The authors described an actual change in the representation of "self" which they referred to as "cognitive interdependence" (Agnew, Rusbult, Van Lange, & Langston, 1998). They define this concept as a "mental state characterized by a pluralistic, collective representation of the self-in-relationship" (p.939). They concluded that this internalization of the self-in-relationship was unique to romantic relationships because the correlation of cognitive interdependence in friends or others was weaker than in those who identified themselves as being involved in a committed, romantic relationship.

Gender Differences

Wives are more likely than husbands to report trust issues as a reason for seeking therapy (Doss, Simpson, & Christensen, 2004). On an 18-point checklist of presenting problems, 6 % of wives rank trust as opposed to 2% of husbands as a presenting problem (Doss, Simpson, & Christensen, 2004). Women appeared to have more integrated, complex views of their relationships than men (Remple, Holmes, & Zanna, 1985). Women are more prone to respond to violated trust affectively, while men are more likely to retaliate as a way of responding to slights and hurts. Men often find it more difficult to experience empathy toward a spouse and have even greater difficulty when they experience anger and blame from their spouse in response to their hurtful behavior. Men are also more likely to withdraw, retaliate and avoid than women (Fincham & Beach, 2004).

Other issues

The fact that the majority of the studies cited (90%) utilized a convenience sample: college undergraduates, university employees or other homogeneous

samples Most state that these particular studies should be replicated utilizing a broader sample of participants in order to generalize results beyond a college population, the vast majority of which were Caucasian and middle to upper middle class. These convenience samples compromise the application of many findings beyond this population. In addition many issues studied pertaining to attachment, intimacy, different measures of trust, empathy, mutual support and meeting of needs could be greatly influenced by the developmental stage of the majority of participants. Relationships in college samples would likely be fairly recent and possibly short lived. Most college students are just beginning to experience and develop autonomy, which is a necessary step prior to the establishment of intimacy (Moshman, 1999). Participants in most cases would be separating from parents and leaving home for the first time which would exert significant influence on closeness and relationship needs.

Method

Chapter Three

Participants

Participants included both males and females age of 18 and above. Two distinct groups of participants were used in the current study. The first group was comprised of undergraduate students enrolled in Life Development and Career classes who were utilized in an earlier pilot study from the University of Oklahoma. This group returned 118 packets and represented an age range of 17 to 51 with a mean age of 22.4. The gender distribution was 42 males and 59 females.

The researcher later obtained a sample of a maximum of 500 (487) participants that was more diverse in age, socio-economic status, education,

length in relationship, and ethnicity. These additional participants were provided with a web link to "Survey Monkey," an online, secure, survey instrument. The combined response breakdown was: 1) previous paper surveys from an undergraduate psychology course: 118; 2) Additional undergraduate psychology students: 64; 3) AARP and internet: 136; and 4) College of Liberal Studies: 287. The combined groups resulted in a total sample of 605 respondents. The range of ages was from 17 to 73 years with a mean of 35.908 and standard deviation of 13.49. Of the 605 respondents, 32.7% were male and 67.3% female.

A total of 530 or 88% indicated being in a close interpersonal relationship with a range of 1 month to 683 months or 56.9 years in their current relationship. The mean number of months in relationship was 118.4 months or almost 16 years with a standard deviation of 133 months or 11.8 years. A total of 52.7% reported being married at the time of the survey with 19.7% single, 4.8% divorced, 3.6% cohabitating, and 19.2 otherwise partnered.

The range of highest education completed was from GED to doctoral degree, with the mean obtained of 2.9, which reflected having obtained slightly less than a college degree, mode of 3 which equals a college degree. Three individuals or .6% indicated they had completed a GED; 172 or 32.5% reported completion of high school. Two hundred and seventy five indicated completing college. Seventy five said they completed a master's degree which reflected 14.3% and 26 had completed their doctorate, or 5% of those who responded. A total of 525 participants completed this item.

In terms of ethnicity, 62%, a total of 375, indicated they were Caucasian, 4.6 % (28) indicated they were African American, 3.4%, n= 19 indicated being Native American, 4 %, or 24 said they were Latina/Latino, 1.7 (n=10) said they were Asian, and 1.7%, or 10 individuals indicated they were Asian Indian. In the "other" category, 2.3% indicated an ethnicity not listed (1 person indicated being Iraqi) or a mixture of listed ethnic choices. Twenty three percent of the participants chose to not respond to this question.

Participant's income range was presented as a drop down list of choices ranging from below $25,000 to above $100,000. Seventy four percent of participants answered this question with a resulting mean income of slightly less than $50,000. Slightly over 9% indicated making under $25,000, 6.8% between $26,000 and $35,000; 6.7% between $36,000 and $55,000; 13% between $56,000 and $75,000; 16.8% between $76,000 and $100,000 and finally $17.6% of those who responded indicated earning more than $100,000. It should be noted the question was worded such that subjects answered in terms of individual or family income. These results should be carefully interpreted due to the numbers of undergraduate students in the sample who report family income. (See Table 2 in the Results Section.)

Background Questions.

Questions on participant demographics included the individual's age, gender, highest educational level completed, whether individuals were currently involved in obtaining their education and at what level, whether or not they were

currently involved in a relationship and the status of that relationship, the number of months they had been involved in their current relationship, their ethnicity, and their current individual or family income.

Following the demographic questions, one question was asked about how important participants perceived the value of trust in relationships (extremely important, necessary, difficult to maintain, impossible, impossible to regain after broken or "other"). Questions were then posed about the level of trust they experience, the level of mutuality and intimacy, and the level of satisfaction (all "high, moderate, or low") in their current relationship.

Responding to a question regarding the importance of trust were 580 of the 605 participants. Of these, 83.7% of participants ranked trust as extremely important. Thirteen percent said it was necessary in a relationship while .7% chose the option of "Nice", .2% (1 individual) indicated "Not important to me" while 1.7 percent indicated it was impossible to maintain.

In response to a question asking about the level of trust they experience in relationship 544 participants answered (although only 530 indicated currently being involved in a relationship). An impressive 68.2% of the sample indicated they experience high trust in their current relationship, 19.5% moderate trust and 5.1% low trust. Another item asked about how they would rate the level of emotional mutuality and intimacy in their current relationship. The terms were defined as: "mutuality refers to mutual feeling, investment, commitment, etc." and intimacy refers to "the amount of physical, emotional, social and intellectual closeness" they experience in their relationship. On this item, 548 individuals responded with 59.8% indicating they experience a high degree of mutuality and intimacy, 25.5% indicated a moderate degree while only 7% rated the degree as "low". When asked about relationship satisfaction, 548 responded with 61%

indicating a high degree of relationship satisfaction, 25.5% said satisfaction was moderate, and 7% reported a low degree of satisfaction in their relationship.

Instruments

A demographic questionnaire was administered to obtain information about participants' age, gender, time in a close relationship, importance assigned to trust in close relationships, socio-economic factors, education, ethnicity and current relationship status. The demographic questionnaire was developed by the researcher to examine informal correlations with these results and total trust as well as attachment style. In addition to the demographic questionnaire, the following instruments were used in the study: The Experiences in Close Relationships Scale - Revised, The Trust Scale, and the Relationship Confidence Scale. These three instruments result in a total of 78 items intended to identity and operationalize the constructs of trust in close relationships that relate to the definition of trust used in this study.

Relationship Confidence Scale This scale contains 24 items related to trust in close relationships. The measure not only attempts to obtain a rating of the degree of trust one has in one's partner but the anticipated confidence one has that the other will continue to relate in a predictable way that meets one's needs.

In previous research, the Relationship Confidence Scale, (2006) produced reliability values above .90 (Cronbach's alpha) while the current study yielded reliability values of .958 (Cronbach's alpha). Scores on this scale have proven to be predictive of reported jealousy, conflict style, agreement and understanding of a partner's explanations for a negative event, and the use of control tactics in

close relationships (Rempel, 2006). Sample items from this instrument include: "In the future, when your partner does things that leave you feeling hurt, do you believe that your partner will be intending to cause you pain? a) yes b) no c) I don't know what to expect from my partner." In addition, the participant were then asked to respond to a 7 point Likert type scale anchored by 1 for "barely confident" to 7 for "perfectly confident." On the Relationship Confidence Scale, a complex formula is entered into SPSS. It is both the response and then the rating that are taken into consideration in computing a trust score. For example, if an item is positively worded and the response is "yes" and the Likert rating "7", this would result in a high positive score. However, if the item is negatively worded and the answer is "yes" and the rating is "7", the formula would compute a low trust score for that item. Only the overall trust score for each individual was utilized in the correlations and multiple regression portions of the study. Resulting scores from the second part of the question were then submitted to factor analysis for the Relationship Confidence Scale.

The Trust Scale. The overall Cronback alpha of *Trust Scale*, (Remple, Holmes, & Zanna, 1985) was reported as .81, with subscale reliabilities of .80, .72, and .70 for the faith, dependability, and predictability subscales, respectively. On the *Trust Scale,* (Remple & Zanna, 1989) the following items were stated in the negative to adjust for response bias 3, 5, 6, 8, 12, 13, 15, 16, and 17. These items were reverse scored prior to analyses. This scale consists of 18 items that measure trust in another person. The format is a 7 point Likert type scale grounded from -3 to +3 with 0 being the neutral response. The following is a

sample item from the Trust Scale (Remple, Holmes & Zanna, 1985): "My partner has proven to be trustworthy and I am willing to let him/her engage in activities which other partners find too threatening". In the current study, the Cronbach alpha coefficient was .896. The subscale reliabilities for the faith, dependability, and predictability in the current study were Cronbach alpha coefficients of .91, .87, and .79 respectively.

The Experiences in Close Relationships Questionnaire-Revised (ECR-R) is a 36-item self-report measure of adult attachment, derived from a comprehensive factor analysis of the major attachment measures used through 1998. Responses are given on a 7-point Likert-type scale ranging from 1 (*disagree strongly*) to 7 (*agree strongly*). The ECR-R directs respondents to rate how they generally experience romantic relationships, not what may be happening in a current relationship. The Anxiety subscale (18 items) assesses fear of abandonment, preoccupation with one's romantic partner, and fear of rejection. The Avoidance subscale (18 items) assesses avoidance of intimacy, discomfort with closeness, and self-reliance. Brennan et al. reported that the coefficient alphas for the Anxiety and Avoidance subscales were .91 and .94, respectively. Brennan et al. also found that the subscales were correlated in the expected directions with measures of touch aversion and emotions in sexual situations. Test-retest reliabilities (3-week interval) were .70 for each subscale (Brennan, Shaver, & Clark, 2000). Sample items from this instrument include: "If I can't get my partner to show interest in me, I get upset or angry" or "I tell my partner just about everything." In the current study, the Cronback alpha coefficient for

the ECR-R was .76 with subscale coefficient alphas for the Anxiety and Avoidance subscales of .75 and .79 respectively.

According to Pallant (2006), the coefficient alphas should be greater than .70 for instruments used in a study in order to provide measures of internal consistency. The Cronbach alpha statistics from previous research and the current study suggest reliable measures of internal consistency.

Procedure

The process of recruitment and data collection was twofold. One method of data collection was the utilization of packets described earlier, which were given to undergraduate students from several psychology classes. They completed the surveys and returned all packets to the researcher. This data collection method was a direct procedure that began with individuals who were attending classes in a large four year southwestern university. An additional method of data analysis was the utilization of online surveys constructed through "Survey Monkey." Participants who were in various participant pools outlined above and listservs were sent an e-mail with a link to the survey (Appendix E). They were presented with an email message stating that this was an invitational email and they may or may not choose to participate in the study by selecting or not selecting the link. "If you choose to participate you will be given a demographic sheet along with three questionnaires that ask about your attitudes and how you feel about different situations. The questionnaires take about twenty minutes to complete." The IRB approved e-mail was provided to the College of Liberal Studies at the University of Oklahoma and sent to all of their students for

voluntary participation. A link was also provided anonymously through the community website of the American Association of Retired Persons and a social networking site. All online surveys were completed and maintained through Survey Monkey, an external website that saved the collected data and assured confidentiality. Responses made on pencil/ paper surveys were entered into SPSS by the researcher. Unique collector codes were assigned in order to identify response groups. The survey responses were saved within Survey Monkey's database and were only accessed by the researcher through a user name and password. All safeguards to insure anonymity were taken through this online service. Data collected through the online surveys were entered into statistical data analysis software by direct import from Excel spreadsheet into SPSS statistical data package. All participants, whether completing a hard copy packet or on online surveys self-administered and all data were anonymous. Limited identifying information was gathered or retained by the researcher. The only identifying data was collection codes identifying different groups such as community college, four year university, local college, undergraduate classes, and mature subjects through AARP web site or general contacts. This identified groups of individuals, not the individuals themselves by assigning a different "collector ID" for each group. Approximate time necessary to complete all surveys was between 20 to 30 minutes. When participants accessed the on line survey, the first page they saw was the IRB approved informed consent which explained the purpose, what was involved, that participation was completely voluntary and contact information should they have a concern, question, or

difficulty. Additionally IP addresses were collected to refer to in case an individual experienced difficulty or reported distress. At the end of the 4 week period, the Survey Monkey on line access was closed before data were downloaded to assure all responses were captured.

After all data were transferred from Excel into SPSS, the data were analyzed for outliers through examining frequencies and cleaning the data for any data entry errors. Outliers were removed such as the individual who reported an age of 2, one reported an age of 99 and as previously mentioned any individuals who completed the surveys who were under the age of 18 were eliminated in order to comply with IRB approved procedures. Frequencies, means, and standard deviations were computed as reported here in demographic data about participants. Those individuals who reported not currently being involved in a close interpersonal relationship were then eliminated.

Items 3, 5, 6, 8, 13, 15, 16, and 17 of the Trust scale were recoded into the same variable in reverse order as instructed by the authors due to these items being originally negatively worded for response bias protection. This was accomplished using SPSS transform/ recode formulas. The following formulas were input into SPSS for the Relationship Confidence Scale in order to recode the item score and compute a total trust score for each individual in the study.

Procedures provided by the authors of the Relationship Confidence Scale were used to prepare the data for analysis and to prepare a single index of trust for each individual. The first step was to again recode negatively worded items so that a higher score on that item would reflect a higher score rather than the

opposite. Items 2, 3, 6, 7, 14, and 17 were recoded. Such an item would be "Do you believe that, although your partner cares for you, your partner's primary concern will always be for his or her own welfare?" An answer of "yes" to this item would certainly impact the second half of the question which is "How confident are you that your partner (will/ will not) be concerned primarily with his or her own welfare?" Following the recoding, the data were subjected to the following formulas:

If TA01=2, then T01=((TB01-8)*-1)

This equation would simultaneously recode the expectation of a negative response with a confidence level of "6" as a "2", a "5" as a "3", a "4" as a "4", a "3" as a "5", a "2" as a "6", and a "1" as a "7". In the same way, the most positive response a person could give would be a response of "1" to a positively worded item followed by a "7" on the second part of the question. The formula then is:

If TA01=1, then T01=TB01+8

This equation also recodes a response of "6" as a "14", "5" as "13", "4" as "12", "3" as "11", "2" as "10", and "1" as "9".

Finally, if the respondent indicated in the first part of the question that he had absolutely no idea whether or not his partner continue to accept him, the second part of the question would remain blank and this response would be coded at the midpoint of the scale, "8", with the following type of statement: If TA01=3, then T01=8. Using the combination of the three formulas above, the response on each questionnaire item is converted to a number between 1 and 15.

This resulted in 24 new variables labeled T01 through T24. These "trust" scores will be used in further analyses of the data.

Items on the Experiences in Close Relationships – Revised were randomized and then the anxious attachment items were alternated with the avoidant attachment items prior to presenting them to participants. Items 3, 15, 19, 22, 25, 27, 31, 33, and 35 were positively worded therefore resulting in lower scores on anxious and avoidant attachment style and were reverse scored prior to continued data analysis. The avoidant attachment subscale was obtained by summing the responses to the odd numbered items and the anxious attachment subscale was obtained by summing the even numbered items on the ECR-R.

Following the described required manipulations of the data, factor analyses were conducted on the Trust Scale by Rempel and the Relationship Confidence Scale individually and then an additional factor analysis was conducted with the two scales combined. The resulting factors were then used in further analyses of the data. Tests of reliability were conducted on each scale utilized and then conducted on relevant subscales to assure alpha coefficients of greater than .70 as recommended by Pallant (2006).

Research Design

The initial stages of the research involved factor analyses in order to identify the factors that make up trust in close interpersonal relationships. These factors were extracted through three factor analyses on two trust scales and then combined. Next, attachment style data were extracted and analyzed based on the Experiences in Close Relationships Scale – Revised (ECR-R). These factors were

then utilized to conduct further analyses of associations between these factors and Total Trust scores as well as associations with attachment styles, specifically Anxious, Avoidant, and Secure. Correlations and ANOVAS were utilized to analyze these relationships. Finally, hierarchical multiple regressions were conducted to look at the predictive qualities of the factors on trust, the factors on attachment style and the relationships among these aspects of the study.

Results

Chapter 4

Screening for accuracy of data was conducted prior to any statistical analyses. Questions on participant demographics pertained to the individual's age, gender, highest educational level completed, whether or not they were currently involved in a relationship and the status of that relationship, the number of months they had been involved in their current relationship, their ethnicity, and their current individual or family income. Demographic data included all participants whereas other data were screened for missing values. Therefore, the total sample size was 605 but when those records of those who indicated they were not currently in a close relationship were removed, the remaining sample was 530.

Missing Data

One of the first and potentially most important steps in data analysis is to explore patterns of missing data and decide how missing data will be handled (Tabachnick & Fidell, 2001) and (Schlomer, Bauman, & Card, 2010). The most prevalent means of dealing with missing data is to delete cases with nonresponse. However, this can affect the results depending on the amount and pattern of the

missing data (Tabachnick & Fidell, 2001). With the advancement of technology, there are methods of imputation, or data substitution, to address this issue. The imputation method chosen for this study was the insertion of the median response within two points of each missing response. This method was chosen as it is recommended above mean substitution and is easily accomplished through SPSS version 17. It was also chosen because in later analyses of the correlations of trust scales with attachment style, there were many more nonresponses to the ECR-R at the end of the surveys than to the scales at the beginning possibly suggesting response fatigue or impatience with the process. To have simply deleted cases would have eliminated important data from the trust scales and would have biased the results to only those participants who were the most persistent in their responses. (See Table 1). Without this method of imputation, Total Trust and Total Security scores could not be accomplished. (Tabachnick & Fidell, 2001) and (Schlomer, Bauman, & Card, 2010). This explains the consistent number of 530 for many of the analyses.

Table 1 Missing Data Demographics

N	Gender	Rel. Status	Education	Ethnicity	Income	Value Trust	Trust Level	Mutuality	Satisfaction
Valid	605	477	478	480	469	600	564	567	568
Missing	0	128	127	125	136	5	41	38	37
%	0	21	20	20	22	.8	6	6	6

The primary factors in trust, the relationship between these factors and total trust were examined. Another measure yielded information about attachment style and its relationship to total trust. ANOVA analyses were used to test for differences across levels of total trust with attachment styles. Pearson product moment coefficients were utilized to examine the correlations among research questions. Exploratory factor analysis was used to identify specific

factors within trust. Hierarchical multiple regressions were used to examine the predictive nature of factors on trust and attachment style. Frequencies and descriptive statistics were used to examine the demographics.

Table 2 Demographics Table

Variable	Frequency	Mean	Range or Percent	Standard Deviation
Age	580	35.908	17-73	13.49
Gender	603			
Male	196		32.7%	
Female	407		67.3%	
In close relationship	530	118.4	1 month – 683 months	133 months
Relationship Status				
Married			52.7 %	
Single			19.7%	
Divorced			4.8%	
Cohabitating			3.6%	
Otherwise Partnered			19.2	
Education	**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid GED	3	.6	.6	.6
High School	172	32.5	32.8	33.3
College	249	47.0	47.4	80.8
Masters	75	14.2	14.3	95.0
Doctoral	26	4.9	5	100
Total	525	99.1	100	
Ethnicity				
Caucasian	375	62%		
African American	28	4.6%		
Native American	19	3.41%		
Latina/Latino	24	4.0%		
Asian Indian	10	1.7%		
Income				
< $25,000	58	9.6		
>$26,000, <$35,000	42	6.9%		
>$26,000, <$55,000	42	6.9%		
>$26,000, <$55,000	42	6.9%		
>$56,000, <$75,000	79	13.1%		
>$76,000, <$100,000	99	16.4%		
>$100,000	107	17.7%		

Additional Demographic Questions

Following the demographic questions, participants were asked about how important they perceived the value of trust in relationship (extremely important, necessary, difficult to maintain, impossible, impossible to regain after broken or "other"). Then questions were posed about the level of trust they experience, the

level of mutuality and intimacy, the level of satisfaction in their current relationship. They were given the response options of "high", "moderate", or "low". (See Appendix E).

Table 3 Ratings

Variable	Ratings				
Value Trust	Extremely Important	Necessary	Nice	Not important	Impossible to maintain
	83.6%	13.1%	.7%	.2%	1.2%
	High	**Moderate**	**Low**	**Totals**	
Trust Level	67.6%	20.3%	5%	564	
Mutuality	63.1%	30.9%	5.6%	567	
Satisfaction	64.6%	27.8%	7.4%	568	

From results of a one way ANOVA, gender differences were found on the satisfaction and trust level categories at the $p < .05$ level of significance with females experiencing significantly higher levels of trust and satisfaction in relationship than males. No significant differences were found between groups on levels of mutuality and intimacy. However, significant differences were found between males and females on level of income reported. A one way ANOVA was conducted on income by gender. With an N of 418, which was 79% of the total sample who reported their income level, the Mean income for males was 5.36 (approximately $62,000) and 4.56 (approximately $50,000) for females, which resulted in significance at .000. $F(1.417) = 15.301$, $p = .000$.

Table 4 One Way ANOVA

Income and Gender					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	58.758	1	58.758	15.301	.000
Within Groups	1601.347	417	3.840		
Total	1660.105	418			

Attachment Style

Sixty seven percent of participants endorsed the secure attachment style, while 16 % endorsed the anxious attachment style and 16.4% endorsed the avoidant attachment style. These results for this sample were slightly higher for the Secure style than previously reported in the research such as Hazan and Shaver (1987) but were about the same for Anxious and Avoidant.

Research Questions:

Research question one. Do the factors gleaned from the two trust scales measure different aspects of trust or are they highly correlated to each other?

An examination of Table 5 of the factor loadings of the two trust scales combined reveals a distinct pattern of loadings in excess of .30 when selected by size of loading. The factors group primarily on the first four factors but in different scales or subscales of the measures. Therefore, the answer to this research question is factors measure different aspects of trust rather than being highly correlated to each other.

Table 5 Rotated Factor Matrix[a]

	Factor					
	1	2	3	4	5	6
TB18	.825					
TB15	.818					
TB20	.818					
TB10	.802					
TB24	.797					
TB19	.791					
TB23	.782					
TB13	.778					
TB16	.775					
TB12	.747					
TB22	.743					
TB08	.739					
TB21	.733					
TB11	.667					

TB09	.626					
TB14	.589			.410		
TB04	.583			.352	.336	
TB17	.565			.463		
TB01	.551				.323	
TS5		.852				
TS17		.825				
TS15		.817				
TS13		.746				.343
TS8		.737				
TS6		.736				
TS16		.726				
TS3		.625				.369
TB05		.566				
TS12		-.414				
TS10			.620			
TS7			.601			
TS18			.595			
TS14			.583			
TS4			.578			
TS11			.538			
TS1			.537			
TS2	.344		.528			
TS9			.494			
TB06						
TB03	.342			.770		
TB07	.509			.509		
TB02				.458		

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Table 6 presents the correlations between factors obtained.

Table 6 Intercorrelations of the Factors of Trust

	Faith	Predictability	Benevolence	Dependability
Faith	1.00	-.212	.816	.597
Predictability	-.212	1.00	-.191	-.543
Benevolence	1.00	-.191	1.00	.469
Dependability	.597	-.543	.469	1.00
N	530	530	530	530

Only benevolence and Faith were correlated above .70 and appeared to be correlated to a degree that could indicate that these factors measure similar

constructs. Other factors appear to be reflecting different aspects of trust. It was somewhat surprising to see that predictability, dependability and faith represented negative correlations even though predictability and benevolence relationships were small. As was observed in Leveridge, Stoltenberg, and Beesley (2005), the criteria of >.70 was used to address concerns of collinearity.

Relationships Among the Three Scales

In order to study the relationships among the various trust and experience in close relationships scales, inter-correlations among the three scales were examined. Both trust scales were positively correlated with total trust scores.

Additionally, item intercorrelations were conducted and were determined to be minimally correlated so it was determined that the items measure different aspects of trust.

Research question two. Are persons with high levels of trust in close relationships more likely to exhibit a secure attachment style while those with low levels of trust in close relationships more likely to exhibit anxious or avoidant styles?

As shown in Table 7, a one way between groups ANOVA was conducted to explore the impact of high and low levels of trust on secure attachment. Two groups were established: High Trustors >.70 and Low Trustors <.30. The two groups were equal with N=428. Group 1 (Low Trustors) = 213, (High Trustors) = 215 (See Table 6).

There was a statistically significant difference at the .05 level in Total Security scores for the two groups. $F(1, 426) = 3.917$, $p=.048$. (See Table 6).

Table 7 One Way ANOVA Total Security and High and Low Trustors

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	1345.39	1	1345.39	3.917	.048
Within Groups	146330.30	426	343.50		
Total	147675.70	427			

Therefore, the answer to the first half of research question one is that persons with high trust are significantly more likely to exhibit a secure attachment style.

Table 8 Mean and Standard Deviations of Total Security and High and Low Trustors

	N	Mean	Std. Deviation	Std. Error
1 Low	213	161.61	21.31	1.46
2 High	215	165.16	15.29	1.01
Total	428	163.39	18.59	.898
Model Fixed Effects			18.53	.895
Random Effects				1.773

The second half of the research question pertaining to low trust and anxious or avoidant styles yielded different results, however. There was a significant difference between groups for Avoidant attachment style $F(1, 426) = 4.06$, $p=.05$, but not for Anxious attachment style $F(1, 426) = 2.46$ $p=.117$. Therefore, individuals with low trust are more likely to exhibit an avoidant attachment style but not necessarily an anxious attachment style.

Table 9 One way between groups ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Anxious	Between Groups	486.036	1	486.036	2.46	.117
	Within Groups	84106	426	197.43		
	Total	84592	427			
Avoidant	Between Groups	641.539	1	641.539	4.06	.042
	Within Groups	67297.212	426	157.975		
	Total	67938.75	427			

Research question three. Are specific constructs of trust more closely related to attachment style than other constructs? Pearson correlations were conducted to

determine the direction and strength of the relationship between the factors of trust and the three attachment styles (See Table 10).

Table 10 Pearson Correlation of Trust Factors and Attachment Style

Factors	Faith	Predictability	Benevolence	Dependability
Attachment Style				
Anxious	-.164	-.015	-.102	-.090
Sig. (1-tailed)	.000*	.367	.009*	.019*
Secure	.306	.117	.230	.133
Sig. (1-tailed)	.000*	.004*	.000*	.001*
Avoidant	-.279	-.158	-.228	-.105
Sig. (1-tailed)	.000*	.000*	.000*	.008*

Pearson's product-moment correlation coefficients reveal that all four factors of trust are positively correlated with secure attachment style while negatively correlated with anxious and avoidant styles. Faith is most strongly correlated with secure style, with benevolence the next highly correlated with secure style. Faith is also the most strongly, negatively correlated with avoidant style and benevolence is the next strongest negative correlation. Correlations among the factors of trust and anxious style were weak although all of the factors except predictability showed significant correlations. Therefore, faith and benevolence emerge as the strongest correlations with attachment style.

Research question four. How is information about attachment style and trust important in the therapeutic environment and relationship?

Our relationship health or distress does not occur in a vacuum. It begins with our earliest relationships within the family structure and continues throughout our adult relationships and into our most intimate love and marriage relationships. The children then born into these families either benefit from or pay for the ability or inability of their parents to provide safety and healthy development. Trust and attachment style have been shown to be correlated with

personality traits, quality of relationship, and even repair of attachment wounds or violations.

An individual's ability to bond in a trusting therapeutic relationship and experience alliance with the therapist is predictive of outcome in therapy as are the traits and characteristics of the therapist. Therefore, the therapist's ability to form a secure attachment with the client, the couple or the family is paramount. The individual, couple or family's ability to form a trusting alliance with the therapist is also key. The mutual and continuous building of this relationship or its decline is directly related to the degree of healing and progress that can be made in therapy.

In addition to the above research questions, several hypotheses are postulated:

Hypothesis 1: That the three constructs of trust theorized by Rempel, Holmes, and Zanna (1985) of faith, predictability, and dependability would again emerge as the three strongest factors when the Trust Scale is subjected to factor analysis.

Factor Analyses of the Trust Surveys

Evaluating Fit of the Factor Model

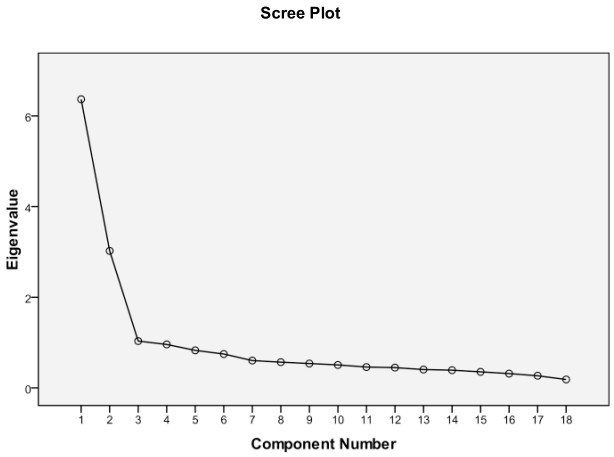
To obtain the factors of trust to be used in the study's additional tests, factor analyses were conducted on each of the two trust surveys independently and then a factor analysis was conducted after combining the items of the scales. This procedure resulted in three distinct factor analyses.

The 18 items of the Rempel Trust Scale were subjected to principal components analysis (PCA) using SPSS Version 17. Prior to performing the

PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Olkin value was .92, exceeding the recommended value of .6 (Kaiser, 1970, 1974) and the Barlett's Test of Spericity (Bartlett, 1954) reached statistical significance of <.001 at p<.000, supporting the factorability of the correlation matrix.

Principal components analysis revealed the presence of three components with eigenvalues exceeding 1, explaining 35.76 per cent, 16.71 percent, and 5.58 percent of the variance, respectively. An inspection of the screeplot revealed a clear break after the third component. Using Catell's (1966) scree test, it was decided to retain three components for further investigation (Figure 2).

Fig. 2



This was further supported by the results of Parallel Analysis, which showed only three components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (Table 11).

Table 11 Parallel Analysis for the Trust Scale

```
2/9/2011   12:37:33 PM
Number of variables:     18
Number of subjects:     530
Number of replications: 100

Eigenvalue #     Random Eigenvalue     Standard Dev
      1               1.3343               .0353
      2               1.2708               .0245
      3               1.2245               .0204
      4               1.1835               .0194
      5               1.1412               .0187
      6               1.1022               .0157
      7               1.0696               .0171
      8               1.0369               .0144
      9               1.0053               .0145
     10               0.9760               .0142
     11               0.9448               .0152
     12               0.9127               .0158
     13               0.8827               .0158
     14               0.8525               .0148
     15               0.8210               .0170
     16               0.7855               .0207
     17               0.7478               .0191
     18               0.7087               .0211
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A decision about the components to retain was then made by comparing the actual eigenvalues from PCA with the criterion values from parallel analysis (Table 14).

Table 12 Decision from Eigenvalues from Parallel Analysis
Eigenvalues Comparison

Component Number	*Actual eigenvalue from PCA*	Criterion value from parallel analysis	Decision
1	15.01	1.58	Accept
2	5.38	1.51	Accept
3	2.42	1.47	Accept
4	1.42	1.39	Accept
5	1.16	1.35	Reject
6	1.06	1.32	Reject

To aid in the interpretation of these three components, a Varimax rotation was performed. The rotated solution revealed the presence of simple structure (Thurstone, 1947), with all three components showing a number of strong loadings and all variables loading substantially on only one component. The three component solution explained a total of 63.795 percent of the variance with

Component 1 contributing 53.192 % of the variance and Component 2 contributing 5.92 % of the variance and the final component contributing 4.687 %. The interpretation of the three components named "Faith, Predictability, and Dependability" was consistent with previous research on the scale the Trust Scale, conducted by Rempel, Holmes, and Zana, (1985). These finding supported the use of these three components as subscales of the Trust Scale. Three orthogonal factors explained 53.8 % of the total variance in trust on this scale.

Hypothesis 2: That the items on the Relationship Confidence Scale, when subjected to factor analysis, will result in additional, and perhaps different constructs of trust.

To test this hypothesis, the 24 items of the Relationship Confidence Scale (Rempel, 2006) were also subjected to principal components analysis (PCA) using SPSS Version 17. Prior to performing PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Olkin value for this scale was .969, which also exceeded the recommended value of .6 (Kaiser, 1970, 1974) and the Barlett's Test of Spericity (Bartlett, 1954) reached statistical significance of <.001 at p<.000, supporting the factorability of the correlation matrix.

Table 13 Components of Relationship Confidence Scale

Component Transformation Matrix

Component	1	2	3
1	.873	.485	-.052
2	-.470	.864	-.180
3	-.133	.132	.982

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Principal components analysis revealed the presence of three components with eigenvalues exceeding 1, explaining 54.5 %, 6.015 % and 4.557 % of the variance respectively. An inspection of the screeplot revealed a clear break after the third component. Using Catell's (1966) scree test, it was decided to retain three components for further investigation (Fig. 3).

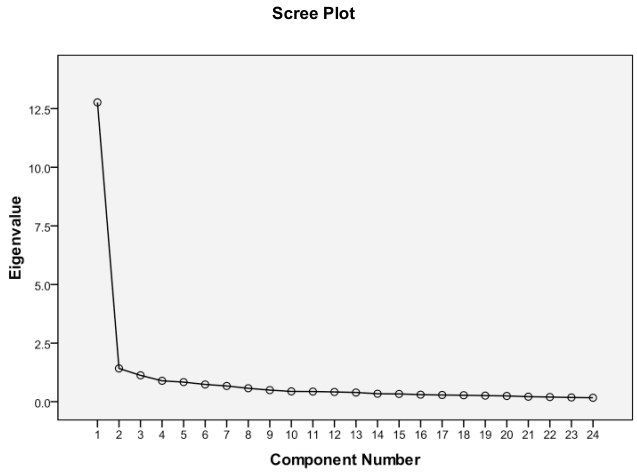


Fig. 3

This was further supported by the results of Parallel Analysis, which showed only three components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size.

Table 14 Parallel Analysis of the Relationship Confidence Scale

```
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Number of variables:     24
Number of subjects:     530
Number of replications: 100
```

Eigenvalue #	Random Eigenvalue	Standard Dev
1	1.4039	.0354
2	1.3424	.0249
3	1.2943	.0246
4	1.2551	.0214
5	1.2164	.0193
6	1.1784	.0180
7	1.1458	.0174
8	1.1141	.0150
9	1.0828	.0157
10	1.0536	.0146
11	1.0252	.0139
12	0.9988	.0146

```
13              0.9744              .0115
14              0.9492              .0145
15              0.9212              .0152
16              0.8947              .0163
17              0.8691              .0159
18              0.8425              .0135
19              0.8148              .0154
20              0.7882              .0154
21              0.7599              .0155
22              0.7269              .0165
23              0.6958              .0183
24              0.6523              .0247
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A decision table shows the factors that were accepted with those rejected when PCA eigenvalues and criterion values were compared in the analysis.

Table 15 Decision from the PCA Eigenvalues and Criterion

Eigenvalues Comparison

Component Number	*Actual eigenvalue from PCA*	Criterion value from parallel analysis	Decision
1	12.77	1.40	Accept
2	1.42	1.34	Accept
3	1.12	1.29	Reject
4	1.42	1.39	Reject
5	1.16	1.35	Reject
6	1.06	1.32	Reject

To aid in the interpretation of these three components, Varimax rotation was performed. The rotated solution revealed the presence of simple structure (Thurstone, 1947), with all three components showing a number of strong loadings and all variables loading substantially on only one component. The three component solution explained a total of 65.007 % of the variance with Component 1 contributing 54.505 % of the variance and Component 2 contributing 6.015 % of the variance and the final component contributing 4.557 %. Three orthogonal factors explained 35 % of the total variance in trust.

Hypothesis 3: That when the two measures are combined and subjected to factor analysis, four factors will emerge which will be faith, predictability, dependability, and benevolence, as was obtained in an earlier pilot study.

To test this hypothesis, the combined 42 items of the Trust Scale and the Relationship Confidence Scale were then subjected to principal components analysis (PCA) using SPSS Version 17. Prior to performing PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Olkin value was .957, exceeding the recommended value of .6 (Kaiser, 1970, 1974) and the Barlett's Test of Spericity (Bartlett, 1954) reached statistical significance, ($p<.000$) supporting the factorability of the correlation matrix. An inspection of the screeplot revealed a clear break after the third component. Using Catell's (1966) scree test, it was decided to retain three components for further investigation

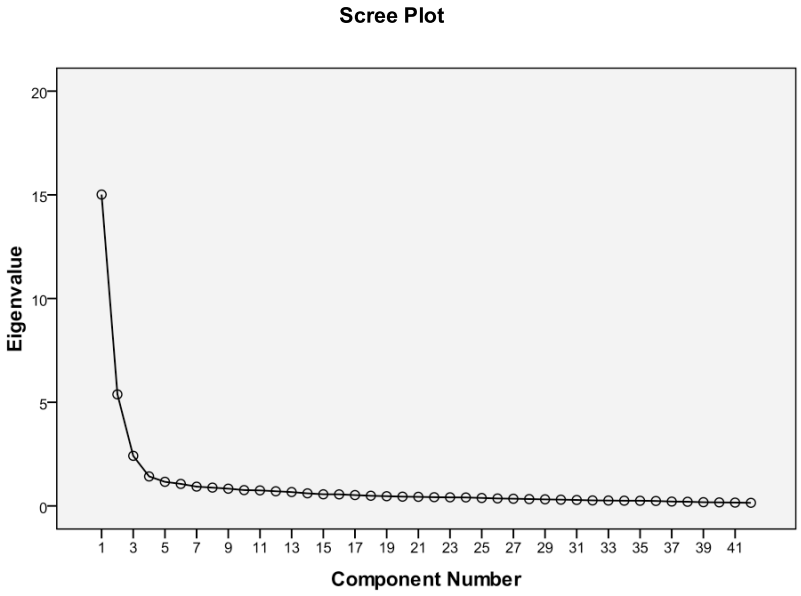


Fig. 4.

Principal components analysis revealed the presence of six components with eigenvalues exceeding 1, explaining 63.49% of the total variance in trust. As previously named by the authors of the trust scale, three were interpreted as faith, predictability, and dependability. The addition of a fourth factor interpreted as benevolence increased the total variance in trust to 69%. An initial principal-components analysis was performed extracting all six factors with Eigenvalues greater than one. Two items were dropped from the scales because of low communalities and they lacked support when Parallel Analysis was conducted. The remaining items were then factored resulting in four factors that accounted for 69 % of the total variance.

Table 16 Pattern structure coefficients for Trust Scales

Component Transformation Matrix for Trust Scales Combined

Component	1	2	3	4	5	6
1	.842	-.271	.367	.268	.099	.041
2	.340	.920	-.147	.087	-.083	.045
3	-.310	.278	.886	-.021	.193	-.063
4	-.281	.000	-.078	.939	.065	.168
5	.028	.029	-.130	.143	.311	-.930
6	-.015	-.044	.190	.131	-.919	-.316

Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

With all three factor analyses, factor retention was further supported by the results of Parallel Analysis, which resulted in 2 components on the Trust Scale, only 1 component on the Relationship Confidence Scale and four components when the two scales were combined.

Table 17 Parallel Analysis for the Scales Combined

```
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Number of variables:     42
Number of subjects:     530
Number of replications: 100
```

Eigenvalue #	Random Eigenvalue	Standard Dev
1	1.5808	.0339
2	1.5164	.0255
3	1.4681	.0238
4	1.4296	.0238
5	1.3924	.0210
6	1.3597	.0175
7	1.3274	.0180
8	1.2975	.0158
9	1.2690	.0141
10	1.2425	.0146
11	1.2170	.0142
12	1.1914	.0161
13	1.1659	.0154
14	1.1413	.0157
15	1.1183	.0146
16	1.0962	.0135
17	1.0732	.0132
18	1.0506	.0129
19	1.0292	.0129
20	1.0075	.0122
21	0.9867	.0126
22	0.9642	.0119
23	0.9443	.0122
24	0.9231	.0125
25	0.9020	.0120
26	0.8846	.0112
27	0.8650	.0115
28	0.8441	.0106
29	0.8241	.0115
30	0.8054	.0114
31	0.7872	.0116
32	0.7675	.0107
33	0.7473	.0112
34	0.7269	.0121
35	0.7083	.0115
36	0.6876	.0120
37	0.6671	.0130
38	0.6480	.0126
39	0.6251	.0123
40	0.6001	.0141
41	0.5763	.0165
42	0.5410	.0207

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In the case of the Rempel Relationship Confidence Scale although only two factors met the criteria, a third was included since it exceeded an eigenvalue of 1 on the principal components analysis and because a priori factor structure was supported in the pilot study. Three factors were therefore retained for the Trust Scale, one for the Relationship Confidence Scale, and 4 factors when the two scales were combined.

Table 18 Decision from PCA Eigelvalues and Criterion
Eigenvalues Comparison

Component Number	*Actual eigenvalue from PCA*	Criterion value from parallel analysis	Decision
1	12.77	1.58	Accept
2	1.42	1.33	Accept
3	1.12	1.22	Accept
4	1.42	1.39	Accept
5	1.16	1.35	Reject
6	1.06	1.32	Reject

Hypothesis 4: That due to the increase in sample size and power, the strength of these emerging factors will be enhanced and therefore more accurately generalized.

Factors obtained from small data sets do not generalize well so one of the matters important to consider is sample size. Some authors suggest that it is not the overall sample size that is most important but ratio of subjects to items. Nunally (1978) recommends increasing the power in a study by making sure that there are at least 10 participants per item in surveys utilized. In the current study, there were 42 combined survey items and a sample of 530, which exceeds this recommended number. Tabaclhnick and Fidell (2001) suggest that it is comforting to have more than 300 cases for a factor analysis. Stevens, however stated that when a sample size exceeds 100, power is no longer an issue and that sample sizes have been reducing and that a sample of 150 for a factor analysis should be sufficient if factor loadings are high.

Additional analyses were conducted using an on line Power/Sample calculator from http://www.stat.ubc.ca/~rollin/stats/ssize/n2.html which computes power from the inference for means or the comparison of two independent samples. Obtained power was 1 for all mean comparisons. This far exceeds the ideal of an 80 percent chance of detecting a relationship. (Pallant, 2006).

Effect sizes varied on statistical analyses. See the individual results for effect size statistics. However, having a large sample which was more diverse and representative of a community makes the results more generalizable.

Hypothesis 5: That when the Experiences in Close Relationships – Revised (ECR-R) questionnaire is added to the study, trust factors will predict attachment styles, specifically anxious, avoidant, and secure.

First, means and standard deviations were computed for the four factors and the three attachment styles. (See Table 19).

Table 19 Means and Standard Deviations for Factors and Attachment Styles

	Mean	Standard Deviation	N
Faith	106.37	20.90	530
Predictability	29.73	11.61	530
Benevolence	31.37	6.67	530
Dependability	54.99	5.87	530
Secure Attachment	162.12	17.97	530
Anxious Attachment	66.92	13.02	530
Avoidant Attachment	58.01	11.87	530

Models 1, 2, and 3 were significant and after all four factors were entered the model as a whole explains 13% of the variance in secure attachment. Even though the effect of faith in predicting secure attachment was significant F (1, 528) = 54.528, p=.000 as was predictability F (1, 527) = 20.858, p=<.001, the total R Square of the factors on secure attachment was .129 or 13%.

Table 20 Model of Factors on Secure Attachment

					Change Statistics				
Model	R	R Square	Adjust R Square	Std. Error of the Estimate	R Square Change	F Change	Df1	Df2	Sig.
1	.306	.094	.092	17.13	.094	54.528	1	528	.000
2	.358	.128	.125	16.81	.035	20.858	1	527	.000
3	.359	.129	.124	16.82	.001	.504	1	526	.478
4	.359	.129	.122	16.84	.000	.059	1	525	.808

a. Predictors (Constant), Faith
b. Predictors (Constant), Faith, Predictability
c. Predictors (Constant), Faith, Predictability, Benevolence
d. Predictors (Constant), Faith, Predictability, Benevolence, Dependability
e. Dependent Variable: Secure

In terms of predictive strength, three of the four factors were significant predictors of secure attachment. Faith, predictability, and then dependability emerged as significant predictors of secure attachment as evidenced by Table 21 which shows the results of a hierarchical multiple regression of the factors on secure attachment.

For every 1 unit of increase in faith, there was a .306 increase in secure attachment (t=7.384, p< .001). Faith contributed .09 or 9% of the unique variance in secure attachment. The unique contribution or variance explained by predictability was only .0334 or 3% and for every 1 point increase in predictability, there was a .190 increase in secure attachment (t=4.567, p<.001). For every 1 point increase in dependability, there was a .012 increase in secure attachment. Dependability did not achieve significance in the model. Benevolence had a small, negative predictive quality and for every one point increase in benevolence, there was a -.051 decrease in secure attachment.

Table 21
Significant Predictors of Secure Attachment

Factor	Zero-order Correlation	Standardized Coefficients	*t*	*p*	Effect size	Semi-partial Squared
Faith	.306	.306	7.384	<.001	Moderate	.09
Predictability	.117	.190	4.567	<.001	Small	.04
Dependability	.133	.012	.243	<.001	Moderate	.06
Benevolence	.230	-.050	-.710	.478	Small	.001

See Fig. 5, 6, 7, and 8 for relevant scatterplots in Appendix I.

Hierarchical multiple regression analysis was also utilized to predict the effect of the four factors of trust on anxious attachment style. Faith was the only factor in this case that yielded significant results F (1, 528) = – 14.638, p=.000.

The other three factors did not yield significance. The overall contribution of the factors on anxious attachment was very small with the total variance in style .033 or 3.3%. Faith uniquely contributed 3.2% of this total with the effects of the other three factors being negligible to none.

Table 22 Hierarchical Multiple Regression Factors of Trust on Anxious Style

					Change Statistics				
Model	R	R Square	Adjust R Square	Std. Error of the Estimate	R Square Change	F Change	Df1	Df2	Sig.
1	.164	.027	.025	12.85	.027	-14.638	1	528	.000
2	.172	.030	.026	12.84	.003	1.399	1	527	.237
3	.032	.032	.027	12.83	.003	1.565	1	526	.211
4	.181	.033	.025	12.84	.000	.153	1	525	.696

a. Predictors (Constant), Faith
b. Predictors (Constant), Faith, Predictability
c. Predictors (Constant), Faith, Predictability, Benevolence
d. Predictors (Constant), Faith, Predictability, Benevolence, Dependability
e. Dependent Variable: Anxious

See Table 23 for the significant predictors of Anxious Attachment from the factors of trust.

Table 23

Significant Predictors of Anxious Attachment

Factor	Zero-order Correlation	Standardized Coefficients	*t*	*p*	Effect size	Semi-partial Squared
Faith	-.164	-.164	-3.826	<.001	Large	.33
Predictability	-.015	-.052	-1.183	.237	Moderate	.10
Benevolence	-.102	-.050	-1.267	.211	Small	.002
Dependability	-.090	.093	-.021	-.392	Small	.03

Finally, a hierarchical multiple regression analysis was conducted to predict the effect of the factors of trust on avoidant attachment style. Three of the four factors emerged as significant predictors. Faith was found to be a statistically significant negative predictor of Avoidant attachment scores, for every one point increase in faith predicts a -.276 decrease in Avoidant scores, t = -6.606, p = <.001. Faith was observed to uniquely account for 3% of the variance

in Avoidance scores. The overall model for Faith and Predictability yielded significance but not for Benevolence or Dependability. Model 1 contributed .076 or 7.6% of the variance in avoidant attachment style and yielded significant results F(1, 527) = 29.699, p=<.001. Model 2 was also significant results F(1, 527) = 26.699, p=<.001. Faith uniquely contributed 3% of the change in Avoidant attachment style while Predictability uniquely contributed .02% of the variance in Avoidant attachment. For every 1 point increase in Predictability, there was a -.325 decrease in Avoidant attachment, t = -5.450, p=<.001.

Table 24 Hierarchical Multiple Regression Predicting Avoidant Style from Four Factors of Trust

Model					Change Statistics				
Model	R	R Square	Adjust R Square	Std. Error of the Estimate	R Square Change	F Change	Df1	Df2	Sig.
1	.276	.076	.075	11.427	.076	43.64	1	528	.000
2	.354	.126	.122	11.128	.049	29.69	1	527	.000
3	.355	.126	.121	11.139	.000	.075	1	526	.785
4	.355	.126	.119	11.149	.000	.07	1	525	.935

a. Predictors (Constant), Faith
b. Predictors (Constant), Faith, Predictability
c. Predictors (Constant), Faith, Predictability, Benevolence
d. Predictors (Constant), Faith, Predictability, Benevolence, Dependability
e. Dependent Variable: Avoidant

Table 25
Significant Predictors of Avoidant Attachment

Factor	Zero-order Correlation	Standardized Coefficients	*t*	*p*	Effect size	Semi-partial Squared
Faith	-.164	-.164	-3.826	<.001	Large	.33
Predictability	-.015	-.052	-1.183	.237	Moderate	.10
Benevolence	-.102	-.050	-1.267	.211	Small	.002
Dependability	-.090	.093	-.021	-.392	Small	.03

In terms of the hypothesis, three of the four factors of trust did significantly predict secure attachment style. The only factor which significantly predicted anxious attachment style was Faith with a negative significant predictive quality. Although all four factors had negative correlations to Avoidant

style, Faith again emerged as the only significant predictor of Avoidant style. So, three factors of trust, specifically Faith, Predictability, and Dependability emerged as significant predictors of Secure Attachment. This part of the hypothesis is supported. Benevolence, however; did not emerge as a significant predictor of Secure attachment and this part of the hypothesis is not supported. Faith was the only factor which significantly predicted Anixous attachment style and supported in the hypothesis. Predictability, Dependability, and Benevolence did not yield significance and therefore are not supported. Faith again emerged as the only significant predictor of Avoidant attachment style and was therefore supported. Predictability, Dependability, and Benevolence did not yield significance and therefore are not supported.

Hypothesis 6: There will be a positive relationship between trust and education level.

Relationship between education and trust.

To address the hypothesis about the relationship between education (demographic questionnaire) and total trust (as measured by the Trust Survey and the Relationship Confidence Scale), a Pearson product-moment correlation was conducted. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a very weak, negative correlation between the two variables [r=-.018, n=525, p<.358] with education sharing essentially no relationship to total trust. This hypothesis was therefore not supported.

Table 26 Correlation of Education and Total Trust

		Education	Total Trust
Education	Pearson Correlation	1.00	-.018

	Sig. (1-tailed)		.358
	N	525	425
Total Trust	Pearson Correlation	-.018	1.00
	Sig. (1-tailed)	.358	
	N	425	428

In order to further study the role of education, a Pearson product-moment correlation was conducted to evaluate the relationship between education and secure attachment. Once again, even though near significance was found, there was a weak positive relationship between the two variables [r=.07, n=525, p<.054] which indicated that education shares .49 percent of the variance in secure attachment. It may be that rather than actually studying the relationship between education and trust, it may be reflecting socio-economic variables in that when individuals are struggling for survival, they certainly feel less secure and are less focused on higher level needs.

Hypothesis 7: There will be a positive relationship between individuals' total trust scores and faith, predictability, dependability, and benevolence.

Relationship Between Subscale Scores and Trust

Table 27 Descriptive Statistics of Factors of Trust and Total Trust

	Mean	Standard Deviation	N
Faith	106.37	20.90	530
Predictability	29.73	11.61	530
Benevolence	31.37	6.67	530
Dependability	54.99	5.87	530
Total Trust	339.5	41.47	428

A one way ANOVA was conducted to examine whether scores on faith, predictability, dependability and benevolence were significantly correlated with total trust scores. All four subscales or factors were significantly correlated with total trust at the <p.01 level.

Table 28 Correlations of Factors with Trust

	N	Pearson Correlation	Sum of Squares	Sig. (1 – tailed)
Faith	428	.675	273026.45	.000
Predictability	428	-.475	-97689.39	.000
Dependability	428	.597	65976.88	.000
Benevolence	428	.484	61961.53	.000

To test the predictive strength and variance explained by the four factors on trust, a hierarchical multiple regression was conducted. The four factors were entered sequentially as independent variables with Total Trust as the dependent variable. All four showed significant results in terms of their predictive relationship to total trust although not all positive as expected. The cumulative variance explained by the overall model was .792.

Faith uniquely accounted for .46 or 46 % of the variance in total trust. Model 1, for every one point increase in Faith, there was a .675 increase in Total Trust, (t=18.907, p=<.001). Model 2, for every one point increase in Predictability there was a -.347 decrease in Total Trust (t=-10.668, p= < .001). Predictability uniquely contributed 12% of the variance in Total Trust.

Model 3, for every 1 point increase in Benevolence there was a -.220 decrease in Total Trust. Effect size was large. The unique contribution of Benevolence on the variance in trust scores was 4%. Effect size was large. Model 4, for every 1 point increase in Dependability, there was a .246 increase in Total Trust although the effect size was small. The unique contribution of Dependability on Total Trust was 4%.

Table 29 Regression of Four Factors on Total Trust

						Change Statistics			
Model	R	R Square	Adjust R Square	Std. Error of the Estimate	R Square Change	F Change	Df1	Df2	Sig.
1	.675	.456	.455	30.618	.456	357.456	1	426	.000*
2	.756	.571	.569	27.224	.115	113.817	1	425	.000*

3	.766	.587	.584	26.736	.016	16.664	1	424	.000*
4	.792	.627	.624	25.445	.040	45.130	1	423	.000*

a. Predictors (Constant), Faith
b. Predictors (Constant), Faith, Predictability
c. Predictors (Constant), Faith, Predictability, Benevolence
d. Predictors (Constant), Faith, Predictability, Benevolence, Dependability
e. Dependent Variable: Total Trust

Table 30
Significant Predictors of Total Trust

Factor	Zero-order Correlation	Standardized Coefficients	*t*	*p*	Effect size	Semi-partial Squared
Faith	.675	.675	18.907	<.001	Large	.45
Dependability	.597	.246	-10.666	<.001	Small	.04
Benevolence	.484	-.220	-4.082	<.001	Large	.27
Predictability	-.475	-.297	-10.988	<.001	Large	.56

Hypothesis 9: Together faith, predictability, dependability, and benevolence, Faith will account for more variance in trust than attachment style and will again emerge as the strongest predictor of Total Trust of the four factors.

Table 31 Variance of Trust Explained by Factors Versus Variance Explained by Factors on Attachment

Constructs of Trust	Variance of Trust Explained	Variance of Secure Attachment Explained
Faith	46%	7.61%
Predictability	12%	5%
Dependability	4%	.01%
Benevolence	4%	0%
Total	66%	12.62%

As can be seen in Table 32, the four constructs of trust, faith, predictability, dependability, and benevolence account for 66 % of the variance explained in total trust while all of the attachment styles combined account for only 12.62% of the variance in total trust therefore supporting this hypothesis.

Attachment Style and Gender

Analyses of variance (ANOVAS) were conducted to investigate the differences between attachment style and gender as measured by the Experiences in Close Relationships – Revised Scale [F(1, 528)=7.88, p= .01]. Post hoc tests

were not performed due to variables containing fewer than three groups. Although females endorsed significantly higher mean scores than did males on anxious attachment, secure and avoidant did not yield significance.

Additional Analyses

The relationship between age and Total Trust (as measured by the sums of scores obtained on the four factors identified from the Trust Scale and the Relationship Confidence Scale) was investigated using Pearson product – moment correlation coefficient. There was not a strong relationship between the variables and in fact a small negative correlation was observed[r=-.027, n=428, p = .288] with the older age group being slightly negatively correlated with Total Trust.

When the same analysis was conducted with age and Total Security (as measured by the Experiences in Close Relationships Scale – Revised), again a slight negative correlation was obtained but this time the correlation was significant at <.05 [r = -.075, n= 530, p = .043].

Then a Pearson product – moment correlation coefficient was conducted with Total Trust and number of months in relationship and a stronger, positive correlation was obtained [r = .104, n = 428, p = .016].

Discussion

Chapter 5

Trust is an essential element for healthy, close, interpersonal relationships. It has been correlated with mental and emotional health. Lack of trust or anxious and avoidant attachment styles have been correlated with depression, anxiety, couple distress and other mental health issues. Despite the importance of these

aspects of relational health, trust globally and specifically is declining. Even though trust is an essential aspect of healthy relationships, little research has looked deeply into trust and attachment style within close interpersonal relationships. Some of the difficulty for researchers in this area has been the difficulty with definitions of trust and its measurement.

The purpose of the current study was to attempt to fill a gap in the literature in this understudied phenomenon. The study attempted to define not only trust, but deconstruct the concept into its components or constructs as a way of understanding aspects of our close relationships.

Beyond the task of looking at these constructs or factors, I further wished to examine what aspects of our style of attachment are associated with the constructs of trust identified. The study also explores the possibility of these constructs being predictive measures of attachment style and level of trust experienced in close relationships. Results of the study added to the evidence for validity and reliability of some of the instruments utilized to measure trust. Reliability coefficients obtained in the current study were consistent with those obtained through instrument development and continued study. The study added to the work and knowledge about trust in our close interpersonal relationships in the hope that it will benefit couples, marriages, children's lives, relationships in general and society as a whole.

Measurement of Trust

Two trust scales were selected based on their use in previous research and validity and reliability statistics. The alphas for the two trust scales selected (TS

and RCS) were within expected ranges in the current study. The alphas obtained for the attachment style sub scales and the ECR-R were slightly lower than expected although adequate for use in the study (>.70). Also the relationship among the two trust instruments was as predicted. They measured similar but not same factors adding to the range of information obtained.

The study revealed that persons with high levels of trust in their closest relationships are more likely to exhibit a secure attachment style. Those with low levels of trust are more likely to exhibit avoidant but not necessarily anxious attachment styles.

As was expected, three factors emerged from the factor analysis of the Trust Scale, which were faith, predictability, and dependability. Therefore, hypothesis number one that the three constructs of trust theorized by Remple, Holmes and Zanna (1985) of Faith, Predictability, and Dependability would again emerge as the three strongest factors when the Trust Scale was subjected to factor analysis was supported.

Also, as expected, submitting the Relationship Confidence Scale to factor analysis resulted in another factor which was different from the other factors as well as adding to the strength of the factor named faith as stated in hypothesis one and was supported. This additional factor was named "Benevolence" as was obtained in an earlier pilot study. When the two scales were combined and subjected to factor analyses, a four factor solution was obtained as was anticipated in hypothesis three.

Hypothesis four was also supported in that due to the increase in size of the sample and greater representation of participants more closely approximating a community sample, power was increased and results should be more generalisable.

Faith emerged as the factor which explained the majority of variance in total trust, as was hypothesized. Also the four factors accounted for more variance in total trust as did attachment style. What was not expected was that predictability exhibited a mild negative correlation with total trust which raises questions about whether predictability of one's partner's behavior was as important to trust as was originally found by Rempel, Holmes, and Zanna (1985).

In terms of attachment style, secure style correlated strongly with total trust as was anticipated. Anxious attachment style was not strongly correlated with total trust but avoidant attachment style was significantly and negatively correlated with total trust.

Measurement of Attachment Style

Even though Fraley, Waller, and Brennan (2000) estimated the Experiences in Close Relationships Scale-Revised to be primarily a measure of anxious or avoidant attachment style, items were recoded in this study to reflect secure attachment and items summed to obtain a scale of secure attachment. This was not suggested or supported by its authors; however, the total security scale significantly predicted high trust.

The percentage yielded in this study of secure attachment style individuals was slightly higher, but within acceptable range of those individuals identified in

previous research. It could be suggested this reflects the relatively high degree of individuals reporting high trust and relationship satisfaction. Those who scored as anxious or avoidant in attachment style were similar to those in previous research (Hazan and Shaver, 1987).

Clinical Implications

There were additional implications for the practice of psychotherapy in terms of clinical and client trust in interpersonal relationships and their implications for mental health.

As clinicians, we are aware that trust is at the very base of all relationships and mental and emotional health. It is an essential part of human development at the most base level. .

Erikson's theory of psychosocial development states that development unfolds in a series of predetermined stages, that there is an optimal time for the ascendancy of a stage, and that the resolution of early stages greatly influences the outcomes of later stages. Based on this principle, Erikson (1950) posited that there were eight psychosocial tasks or crises and they become most salient at different times throughout the life span. The first of these stages is trust versus mistrust. If caretakers are responsive development tends toward a basic sense of trust, if caretakers are not responsive the infant develops a basic sense of mistrust. Infants rely on perceptual cues in new situations and when perceptual cues are not available, they look to others for guidance. Additionally, psychosocial strengths are gained at each stage when the crisis is successfully addressed. For basic trust

versus mistrust a marked tendency toward trust results in hope and is clearly the first building block of development.

When trust is low individuals experience anxiety, depression, isolation and loneliness. When trust is high, they tend to be more trustworthy, outgoing, and experience better mental health. Insecure and avoidant attachment styles are characterized by maladaptive interpersonal relationships as well as individual distress. This is important not only in evaluating individual wellbeing but also their relationships. By assessing the level of trust, specific developmental stage of trust, and attachment style of couples entering therapy, a theoretical approach to helping them understand their strengths in these areas as well as roadblocks could be extremely valuable. Information yielded from this study could be used to develop short forms of trust evaluations in couples. Since faith accounted for the majority of unique variance in trust, this subscale could be utilized as a one factor parsimonious measure of trust. The items yielded on the faith subscale represent the highest developmental level of trust and could serve as not only an assessment of the level of trust experienced by the persons in the relationship but give clues to the areas that need improvement. By choosing target items for a short form to assess trust, relationships could be evaluated early in the counseling process and interventions planned based on the results. Because of the strong relationships between trust and secure attachment, by educating and working directly on trust within the relationship, perhaps improvement in attachment may be accomplished. Improvement in attachment style can be a nebulous and lengthy process whereas direct, specific, work on constructs of trust within the

relationship may result in improvement in relationships and perhaps in attachment.

By identifying the areas of difficulty in trust and exploring their attachment style, interventions could be developed and implemented for couples to increase their belief in each other, assign strategies to increase dependability or predictability and educate them about the importance of benevolence in a relationship. Developmentally and over time, couples should deepen their belief in each other and confidence in their relationship (Holmes, et.al, 1985).

These findings support the work done by Weislequist et.al. (1999) regarding MAX OTHER or MAX OWN behaviors in the establishment of trust. By increasing MAX OTHER pro social behaviors, commitment and trust can be developed and maintained in relationships according to Wieselquist, et.al. (1999). This process becomes interactive and developmental as increased prosocial behaviors add to the couple's level of commitment.

As was found in earlier research, trust as a specific topic in counseling has been grossly overlooked and was not seen as a primary reason couples entered counseling. However, many of the issues that bring couples into counseling revolve around trust issues or trust violations that the author believes could and should be addressed more directly and with approaches to help increase trust in the relationship. Practitioners could be more armed with information and techniques around this very important issue.

A study utilizing college level psycho-education as a way to decrease extra-dyadic relationships showed that not only was psycho-education effective

but succeeded in reducing extra-dyadic relationships with this population. Conducting educational groups or programs on trust and attachment in the college environment could result in major impact on their future relationships. Psycho-education on healthy relationships, partner selection, and the importance of trust and attachment in close relationships could have a profound effect on the quality of relationships these young people form during these very important years. Psycho-educational groups for married couples or for engaged couples interested in pre-marital counseling could include a focus specifically on the role and importance of trust in our closest interpersonal relationships.

An approach to healing "attachment wounds" is proposed by Emotion Focused Therapy which takes couples through an eight stage process of expressing their feelings about betrayals experienced within the relationship. Developed by Greenberg (1985), this approach helps couples work through their emotional-relational distress by helping them resolve injuries to their relationship and their sense of attachment. Studies utilizing this approach yield hope for couples in that specific pathways to change within their relationship and re-establishing safety in their attachment resulted in healing their relationships. This approach also seems to achieve lasting results as evidenced by longitudinal followup studies.

The researcher believes that if greater trust could be built within the context of close relationships, it could add stability to couples, families, and hopefully form stronger and more secure attachment styles. This could add to greater probability of successful relationships and marriages therefore improving

the security experienced by our children and increasing the likelihood of building satisfying and stable relationships. This approach, if successful, could impact future generations in ways that would increase hope for generations of healthier, happier relationships and the world.

This study has added to the data, which attempts to operationally define aspects of trust that are most important in close relationships. These findings may be instrumental in taking an ethereal and hard to grasp phenomenon and making it a specific target of therapeutic intervention at the individual or relational level. It has also supported the premise that there is an important and predictive link between trust and attachment.

Future Directions

Additional research needs to be conducted to develop specific mechanisms for trust repair following trust violations to aid couples in repairing their damaged relationships. If the information yielded from this study were expanded upon in terms of its application, it could be helpful to add to the body of literature on the development and maintenance of trust in our closest relationships. If additional efforts could be focused on continuing to obtain a community sample as opposed to convenience samples, the findings could be much more reliable and generalisable. Due to the previously expressed concerns about using a college sample for this type of research, more research needs to be conducted on an older population with more stable and established relationships.

The researcher would like to see more studies conducted using the four factors of trust as operational definitions of trust in future studies. Given the

difficulty with agreement on definitions of the most important aspects of trust in close relationships, it would be interesting to see these constructs as agreed upon, defined aspects of trust used in further research.

Limitations to the Study

As mentioned earlier, care should be taken in interpretation of results about secure attachment style given the warning of the authors of the scale. Perhaps replication of this study utilizing additional measures of attachment could strengthen the relationships obtained between constructs of trust and attachment style. If this study were replicated with greater controls on instrument administration, there would be less missing data and the problems that result from dealing with missing data management.

As in any factor analysis, the naming of factors may be somewhat subjective on the part of the researcher (Heppner, Kivlighan, Jr., & Wampold, 1999). The difficulties with self-report measures have long been documented such as, for example impression management bias (Hunsley, Vito, Pinsent, James, & Lefebvre, 1996). The anticipated range of subjects representing a community sample was not obtained by the methods of subject selection outlined above. Even though a large sample was obtained and more representative of a typical community than was previously obtained in the pilot study, the sample was still relatively young, lacked normal distribution with regard to ethnicity, income, education, and relationship status. Even though a large overall number of participants was obtained, the lack of controls and accountability with the on line

portion of data collection resulted in lower percentage of complete data sets as did the direct method of data collection.

References

Aisworth, M.D.S., Blehar, M.C., Waters, E., & Wall, S. (1978). Patterns of attachment: A psychological study of the strange situation. Hillsdale, N.J: Erlbaum.

Annastasi, A. & Urbina S., (1997). *Psychological Testing*, Seventh Edition, Prentice Hall International, New Jersey.

Anderson, L.A., & Dedrick, R. E. (1990). Development of the trust in physician scale: A measure to assess interpersonal trust in patient-physician relationships. *Psychological Reports, 67,* 1091-1100.

Baier, A. C., (1986). Trust and antitrust. *Ethics*, 96, 231-260.

Barefoot, J. C., Maynard, K. E., Beckham, J. C., Brummett, B. H., Hooker, K., & Siegler, I. C. (1998). Trust, Health, and Longevity, *Journal of Behavioral Medicine, 21,* 517-526.

Bartholomew, K. & Horowitz, L.M. (1991). Attachment Styles Among Young Adults: A Test of a Four-Category Model. *Journal of Personality and Social Psychology, 61*, 226-244.

Bekker, M. H. J., Bachrach, N., & Croon, M. A. (2007). The Relationships of Antisocial Behavior With Attachment Styles, Autonomy-Connectedness, and Alexithymia, *Journal of Clinical Psychology, 63,* 507-527.

Birnie, C. M. Mc Clure, J. Lydon, J.E. & Holmberg, D., (2009). Attachment Avoidance and Commitment Aversion: A Script for Relationship Failure. *Personal Relationships* , 16, 79–97.

Bowlby, J. (1972). *Attachment and loss: Vol 1. Attachment.* London: Hogarth Press.

Bowlby, J. (1982). *Attachment and loss: Vol.* London: Hogarth Press..

Braithwaite, S., Lambert, N., Fincham, F., & Pasley, K. (2010). Does College-Based Relationship Education Decrease Extradyadic Involvement in Relationships?, *Journal of Family Psychology*, 24, 740-745.

Brennan, K. A., & Shaver, P. R. (1995). Dimensions of adult attachment, affect regulation, and romantic relationship functioning. *Personality and Social Psychology Bulletin, 21,* 267-283.

Carey, M. P., Spector, I. P., Lantinga, & Krauss, D. J., (1993). Reliability of the Dyadic Adjustment Scale, *Psychological Assessment, 5,* 238-240.

Christensen, A., Atkins, D., Baucom, B., & Yi, J. (2010). Marital Status and Satisfaction Five Years Following a Randomized Clinical Trial Comparing Traditional Versus Integrative Behavioral Couple Therapy, *Journal of Consulting and Clinical Psychology, 78,* 225-235.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences.* Jillsdale, NJ: Erlbaum.

Couch, L. L., & Jones, W. H. (1997). Measuring Levels of Trust, *Journal of Research in Personality, 31,* 319-336.

Crocker, J., & Canevello, A. (2008). Creating and undermining social support in communal relationships: The role of compassionate and self-image goals. *Journal of Personality and Social Psychology*, *95*, 555-575.

De Jong, S. B., Van der Vegt, G. S., & Molleman, E., (2007). The Relationships Among Asymmetry in Task Dependence, Perceived Helping Behavior, and Trust, *Journal of Applied Psychology, 92,* 1625-1637.

Derrick, J. L. & Murray, S. L., (2007). Enhancing relationship perceptions by reducing felt inferiority: The role of attachment style, *Personal Relationships, 14,* 531-549.

Doss, Brian D., Simpson, Lorelie E. and Christensen, Andrew, Why Do Couples Seek Marital Therapy? (2004) *Professional Psychology: Research and Practice*. 35, 608–614.

Drigotas, S. M. & Rusult, C. E. (1992). Should I stay or should I go?: A dependence model of breakups. *Journal of Personality and Social Psychology, 62,* 62-87.

Edwards, J. R., & Cable, D. M. (2009). The value of value congruence. *Journal of Applied Psychology*, *94*, 654-677.

Erikson, E. H. (1950). *Childhood and society*. New York: Norton.

European and World Values Surveys four-wave integrated data file, 1981-2004, v.20060423, 2006. Surveys designed and executed by the European Values Study Group and World Values Survey Association. File Producers: ASEP/JDS, Madrid, Spain and Tilburg University, Tilburg, the Netherlands. File Distributors: ASEP/JDS and GESIS, Cologne, Germany.

Fairchild, A. J. & Finney, S. J., (2006). Investigating Validity Evidence for the Experiences in Close Relationships-Revised Questionnaire, *Educational and Psychological Measurement, 66*, 116-135.

Feeney, Noller, & Hanrahan, (1994). Assessing adult attachment. In M. B. Sperling & W.H. Berman (Eds), *Attachment in Adults: Clinical and Developmental perspectives,* (pp. 128-152). New YoriP Guilford.

Fincham, F., & Beach, S. (2004). Forgiveness and Conflict Resolution in Marriage, *Journal of Family Psychology, 18,* 72-80.

Forester, M., Kahn, J. H. & Hesson-Mcinnis, M. S. (2004). Factor Structures of Three Measures of Research Self-Efficacy. *Journal of Career Assessment, 12,* 3-16.

Fraley, R. C., Waller, N. G., & Brennan, K. A., (2000). An Item Response Theory Analysis of Self-Report Measures of Adult Attachment, *Journal of Personality and Social Psychology*, 73 350-365.

Fukuyama, F. (1996). *Trust: The social virtues and the creation of prosperity.* New York: Simon and Schuster.

Gaines, Stanley O. Jr,. Panter, A. T, Lyde, Michael D., Steers, W. Neil, Rusbult, Caryl E., Cox, Chante L., and Wexler, Michael O., (1997). Evaluating the Circumplexity of Interpersonal Traits and the Manifestation of Interpersonal Traits in Interpersonal Trust, *Journal of Personality and Social Psychology*, 73, 610-623.

Glanville, J.L., Paxton, P., (2007). How do We Learn to Trust? A Confirmatory Tetrad Analysis of the Sources of Generalized Trust, *Social Psychology Quarterly,* 70, 3, 230-242.

Glaeser, Edward, David Laibson, Josµe A. Scheinkman and Christine L. Soutter, 2000, "Measuring Trust," *Quarterly Journal of Economics* 115(3): 811-846.

Good, D. (1988). Individuals, interpersonal relations, and trust. In D. Gambetta (Ed). Trust (pp. 31-48). Massachusetts: Basil Blackwell.

Greenberg, L., Warwar, S. Malcolm. W. (2009). Differential Effects of Emotion-Focused Therapy and Psychoeducation in Facilitating Forgiveness and Letting Go of Emotional Injuries. *Journal of Counseling Psychology,* 55, 185-196.

Gurtman, M. (1992). Trust, Distrust, and Interpersonal Problems, *Journal of Personality and Social Psychology, 62,* 989-1002.

Hake, D. F. & Schmid, T. L., (1981). Acquisition and maintenance of trusting behavior*, Journal of the Experimental Analysis of Behavior, 35,* 109-124.

Harvey, S., Kelloway, E. K., & Duncan-Leiper, L., (2003). Trust Management as a Buffer of the Relationships Between Overload and Strain, *Journal of Occupational Health Psychology, 8,* 306-315.

Haselhuhn, M., Schweitzer, M. & Wood, A. (2010). How Implicit Beliefs Influence Trust Recovery, *Psychological Science,X, 1-4.*

Hazan, C. & Shaver, P. (1987). Romantic Love Conceptualized as an Attachment Process, *Journal of Personality and Social Psychology, 52,* 511-524.

Huselhuhn, M., Schweitzer, M., & Woods, A. (2010). How Implicit Beliefs Influence Trust Recovery, *Psychological Science, 10,* 1-5.

Heppner, P.P., Divlighan, Jr., D.M., Wampold, B.E. (1999). *Research Design in Counseling*, 2nd ed., in Quantitative Descriptive Designs, pp. 208-220.

Horn, J.L., Engstrom, R., Cattell's scree test in relation to Bartlett's chi-square test and other observations on the number of factors problem (1979). *Multivariate Behavioral Research 14,* 283-300.

Hunsley, John, Vito, Diana, Pinsent, Celine, James,Susan and Lefebvre, Monique, Are Self-Report Measures of Dyadic Relationships Influenced by Impression Management Biases? (1996). *Journal of Family Psychology*, 10, No. 3, 322-330.

Jacobson, Neil. S. amd Cjrostemsem. Andrew, (1996) Acceptance and Change in Couple Therapy, A Therapists's Guide to transforming Relationships, W.W. Norton & Company, New York, NY.

Johnson-George, C. & Swap, W. C. (1982). Measurement of specific interpersonal trust: construction and validation of a scale to assess trust in a specific other. *Journal of Personality and Social Psychology, 43*,1306-1317.

Kaiser, H. (1970). A second generation Little Jiffy. *Psychometrika, 35, 401-415.*

Kaiser, H. (1974). An index of factorial simplicity. *Psychometrika, 39, 31-36.*

Kelley, H. H., (1984). The Theoretical Description on Interdependence by Means of Transition Lists, *Interpersonal Relations and Group Processes, 47,* 956-982.

Kim, P.H., Ferrin, D. L., Cooper, C. D., & Dirks, K. T., (2001). Removing the Shadow of Suspiciaon: The Effects of Apology versus Denial for

Repairing Competence-Versus Integrity Based Trust Violations, *Journal of Applied Psychology, 89,* 104-118.

Koller, M. (1988). Risk as a determinant of trust. *Basic and Applied Social Psychology, 9*. 265-276.

Klapwijk, A., & Van Lange, P. A. M. (2009). Promoting cooperation and trust in "noisy" situations: The power of generosity. *Journal of Personality and Social Psychology*, *96*, 83-103.

LaGuardia, J. G. & Patrick, H. (2008). Self-Determination Theory as a Fundamental Theory of Close Relationships. *Canadian Psychology, 49,* 201-209.

Lane, J. D. & Wegner, (1995). The Cognitive Consequences of Secrecy, *Journal of Personality and Social Psychology, 69,* 237-253.

Lamb, M. E., Thompson, R.A., Gardner, W.P., Charnov, E.L., & Estes, D. (1985) Security of infantile attachment as assessed in the "strange situation": Its study and biological interpretation. In S. Chess & A. Thomas (Eds), Annual progress in child psychiatry and child development, (1985) (pp. 53-114). New York; Brunner/Mazel.

Lau, E. & Rowlinson, S. (2009). Interpersonal trust and inter-firm trust in construction projects, *Construction Management and Economics, 27,* 539-554.

Leveridge, M., Stoltenberg, C., & Beesley, D. (2005). Relationship of Attachment Style to Personality Factors and Family Interaction Patterns, *Contemporary Family Therapy, 27,* 577-597.

Lewicki, R.J., & Bunker, B.B. (1995). Trust in relationships: A model of development and decline. In Bunker, B.B. & Rubin, J. Z. and Associates (Eds.), Conflict, Cooperation, and Justice; Essays Inspired by the Work of Morton Deutsch. San Francisco: Jossey-Bass Inc.

Lui Abel, A., Sardone, N. B., & Brock, S. (2005). Simulation In The College Classroom: Enhancing The Survey Research Methods Learning Process. *Information Technology, Learning, and Performance Journal, 23(2)*, 39-46. Retrieved February 21, 2009, from ABI/INFORM Global database. (Document ID: 1223242621).

Miller, A. S., Mitamura, T. (2003). Are Surveys on Trust Trustworthy?, *Social Psychology Quarterly, 66,* 62-70.

Miller, P. E. & Rempel, J., (2011). Trust and Partner-Enhancing Attributions in Close Relationships, *Personality and Social Psychology Bulletin, 30,* 695-705.

Moshman, D. (1999). Adolescent Psychological Development, Rationality, Morality, and Identity, New Jersey, Lawrence Erlbaum Associates, pp. 80, 83, 133-116.

Murray, Sandra L., Holmes, John G., Griffin, Dale W, (2000). Self-Esteem and the Quest for Felt Security: How Perceived Regard Regulates Attachment Processes, *Journal of Personality and Social Psychology,* 78, No. 3, 478-498

Murray, S. L., Holmes, J. G., Podchaski, E. J., Rose, P., Derrick, J., & Bellavia, G. (2006). Putting the Partner Within Reach: A Dyadic Perspective on Felt Security in Close Relationships, *Journal of Personality and Social Psychology,* 88, 327-347.

Murray, S. L., Derrick, J. L., Leder, S., & Holmes, J. G. (2008). Balancing connectedness and self-protection goals in close relationships: A levels-of-processing perspective on risk regulation. *Journal of Personality and Social Psychology*, *94*, 429-459.

Murray, S. L., Aloni, M., Holmes, J. G., Derrick, J. L., Stinson, D. A., & Leder, S. (2009). Fostering partner dependence as trust insurance: The implicit contingencies of the exchange script in close relationships. *Journal of Personality and Social Psychology*, *96*, 324-348.

Naaman, S., Pappas, J. makinen, Zuccarini, D. & Johnson-Douglas (2005). Treating Attachment Injured Couples With Emotionally Focused Therapy: A Case Study Approach. *Psychiatry, 68,* 55-77.

Pallant, Julie (2006). SPSS survival manual, a step by step guide to data analysis using SPSS. Open University Press, McGraw-Hill, United Kingdom

Pincus, A. L. & Gurtman, M. (1995). The three faces of interpersonal dependency: Structural Analysis of Self-Report Dependency Measures, *Journal of Personality and Social Psychology. 6,* 744-758.

Rempel, J. K., Holmes, J. G., & Zanna, M. P. (1985). Trust in close relationships. *Journal of Personality and Social Psychology, 49,* 95-112.

Rempel, J. K., Ross, M., & Holmes, J. G., (2001). Trust and Communicated Attributions in Close Relationships, *Interpersonal Relations and Group Processes, 81,* 57-64.

Rosenberg, M. (1957). *Occupations and Values*, pp. 25 – 35. Glencoe, Il; Free Press.

Rotter, J. B. (1967). A new scale for the measurement of interpersonal trust. *Journal of Personality,* 35, 651-665.

Rotter, J.B. (1971). Generalized expectancies for interpersonal trust. *American Psychologist*, 26, 443-452.

Rusbult, C. E. , Verette, Julie; Whitney, G. A., Slovik, L. F.; Lipkus, I. J*ournal of Personality and Social Psychology*. *60,* 53-78.

Rusbult, C. E., Zembrodt, I. M.; Gunn, L. K. (1982*). Journal of Personality and Social Psychology. 43,* 1230-1242.

Sable, P., (1997). Disorders of Adult Attachment, *Psychotherapy, 34,* 286-296.

Schlencker, B. R., Helm, B., & Tedeschi, J. T. (1973). Interpersonal trust, promise credibility, and behavioral trust. *Journal of Personality and Social Psychology,* 25, 421-459.

Schlomer, G., Bauman, S. & Card, N. (2010). Best Practices for Missing Data management in Counseling Psychology, *Journal of Counseling Psychology, 57,* 1-10.

Siegel, D. J., (1999). The Developing Mind. The Guilford Press, New York, NY

Sorrentino, R. M., Holmes, J. G., Hanna, S. E., & Sharp, A., (1995). Uncertainty Orientation and Trust in Close Relationships: Individual Differences in Cognitive Styles, *Personality Processes and Individual Differences, 68,* 314-327.

Stevens, J. (1996). *Applied Multivariate Statistics for the Social Sciences* (3rd edn). Mahwah, J.J: Lawrence Erlbaum Associates. Chapter 11.

Stevens, James, (1999). *Intermediate Statistics*, (2nd ed), New Jersey: Lawrence Erlbaum Associates.

Tabachnick, B. G. & Fidell, L. S. (2001). *Using Multivariate Statistics* (4th edn). New York, Harper Collins. Chapter 13.

Tracey, T. J. & Rounds, J. (1993). Evaluation Holland's and Gati's Vocational-Interest Models: A Structural Meta-Analysis, *Psychological Bulletin, 113,* 229-246.

Van Lange, P., Drigotas, S. M., Rusbult, C. E., Arriaga, X. B. & Witcher, B. S. (1997). Willingness to Sacrifice in Close Relationships, *Journal of Personality and Social Psychology, 72,* 1373-1395.

Vicary, A. M., & Fraley, R. C. (2007). Choose your own adventure: Attachment dynamics in a simulated relationships . Personality and Social Psychology Bulletin , 33 , 1279–1291.

Whitty, Monica T.; Joinson, Adam N., (2009). *Truth, lies and trust on the Internet.* New York, NY, US: Routledge/Taylor & Francis Group.

Wieselquist, Jennifer, Rusbult, C.l E., Foster, C. A. and Agnew, C. R. (1999). Commitment, Pro-Relationship Behavior, and Trust in Close Relationships *Journal of Personality and Social Psycholog., 77*, 942-966.

Williams, L. E. & Bargh, J.A. (in press). Keeping one's distance: The influence of spatial distance cues on affect and evaluation. *Psychological Science.*

Wright, T. L. (1972). Situational and personality parameters of interpersonal trust in a modified Prisoner's Dilemma game, *Dissertation Abstracts International*. 33, 2827-2828.

Wright, T. L., & Tedeschi, R. G., (1975). Factor Analysis of the Interpersonal Trust Scale, *Journal of Consulting and Clinical Psychology, 43, 470-477.*

APPENDIX

A

PERMISSION FROM DR. JOHN REMPEL TO USE HIS SCALES

Hi Karen:

I'm not sure which scale you were planning to use but I've attached copies of the more recent scales that I have used in my research. You are welcome to look them over and adapt them for your research or you can feel free to use the original.

Regards, John

--
John K. Rempel, PhD
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Dear Dr. Rempel:

I am a doctoral student at the University of Oklahoma in counseling psychology. I have followed your research and share some of your same interests, specifically the constructs of trust in close relationships.

I am proposing my dissertation which addresses the constructs of trust and processes involved in trust reparation. I would like to ask permission to use and duplicate your interpersonal trust scale in my research and to request a most recent clean copy of the scale itself.

Your research has been instrumental in shaping my thinking about this important issue in human relationships. Thank you in advance for any assistance you can provide in this endeavor.

Very truly yours,

Karen S. Vaughn, M.A.
Third year doctoral student
University of Oklahoma
Counseling Psychology
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APPENDIX B

Trust Scale (Rempel, Holmes & Zanna, 1985) – Trust within close interpersonal relationships

Instructions:

Please read each of the following statements carefully and decide whether or not you agree that it is true for your relationship with your partner. Indicate how strongly you agree or disagree by circling the appropriate number on the scale beside each statement. Please answer as accurately and honestly as you can.

		Strongly Disagree	Moderately Disagree	Mildly Disagree	Neutral	Mildly Agree	Moderately Agree	Strongly Agree
1.	I know how my partner is going to act. (S)he can always be counted on to behave as I expect.	-3	-2	-1	0	+1	+2	+3
2.	I have found that my partner is a thoroughly dependable person, especially when it comes to things that are important to me.	-3	-2	-1	0	+1	+2	+3
3.	My partner's behavior tends to be quite variable. I can't always be sure what (s)he will surprise me with next.	-3	-2	-1	0	+1	+2	+3
4.	Though times may change and the future is uncertain, I have faith that my partner will always be ready and willing to offer me strength and support, come what may.	-3	-2	-1	0	+1	+2	+3
5.	Based on past experience, I cannot, with complete confidence, rely on my partner to keep the promises (s)he makes to me.	-3	-2	-1	0	+1	+2	+3
6.	It is difficult for me to be absolutely certain that my partner will always continue to care for me; too many things can change as time goes on.	-3	-2	-1	0	+1	+2	+3
7.	My partner is a very honest person and, even when (s)he makes excuses	-3	-2	-1	0	+1	+2	+3

	that are hard to believe, I feel confident that what I am hearing is the truth.							
8.	My partner is not very predictable. I can't always be certain how (s)he is going to act from one day to another.	-3	-2	-1	0	+1	+2	+3
9.	My partner has proven to be a faithful person. (S)he would never cheat on me, even if there was absolutely no chance of being caught.	-3	-2	-1	0	+1	+2	+3
10.	I am never concerned about the difficult times my partner and I may face ahead because I know our relationship can weather any storm.	-3	-2	-1	0	+1	+2	+3
11.	I am very familiar with the patterns of behavior that my partner has established and I know (s)he will always behave in certain ways.	-3	-2	-1	0	+1	+2	+3
12.	If I have never faced a particular issue with my partner before, I occasionally feel insecure about how (s)he might react.	-3	-2	-1	0	+1	+2	+3
13.	Even in familiar circumstances, I am not totally certain that my partner will act in the same way twice.	-3	-2	-1	0	+1	+2	+3
14.	When I am with my partner I feel completely secure in facing unknown new situations.	-3	-2	-1	0	+1	+2	+3
15.	My partner is not necessarily someone who is always considered to be reliable. I can think of some times when (s)he could not be counted on.	-3	-2	-1	0	+1	+2	+3
16.	I occasionally find myself feeling uncomfortable with the emotional investment I have made in our relationship because I find it hard to completely set aside my doubts about what lies ahead.	-3	-2	-1	0	+1	+2	+3

17. My partner has not always proven to be trustworthy in the past and there are those times when I am hesitant to let him/her engage in activities that make me feel vulnerable.	-3	-2	-1	0	+1	+2	+3
18. My partner behaves in a very consistent manner.	-3	-2	-1	0	+1	+2	+3

Reference

Rempel, J.K., Holmes, J.G. & Zanna, M.P. (1985). Trust in close relationships. Journal of Personality and Social Psychology, 49, 95-112.

APPENDIX C RELATIONSHIP CONFIDENCE SCALE

RELATIONSHIP CONFIDENCE SCALE

The following questionnaire asks you about how you expect your partner will respond to you in the future. For example, you will be asked to consider questions like the following:

"As your relationship goes on, do you expect that your partner will continue to like the same type of music that you do?"

a) yes b) no c) I don't know what to expect from my partner

As you read each question, the first thing we want you to do is to answer "yes" or "no" according to your "gut feelings." We realize that, technically, it is impossible for you to state any expectation with absolute certainty. No one can completely predict the future – especially if it involves another person. However, based on what you know, believe and feel about your partner, we want you to give us your "best guess" about how your partner will respond to you. It does not matter at this point how certain you are about your answer. As long as you are leaning even slightly more in one direction than in the other, indicate that choice. The "I don't know" option is available only as a last resort. Use it only when you have absolutely no idea about what to expect from your partner.

After you have answered either yes or no to the first part, we then want to know how confident you are that your expectations about your partner's responses will actually come true. For example:

"How confident are you that your partner (will / will not) continue to like the same music that you do? (Please circle one number.)"

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

The first step in answering each of these questions is to circle "will" or "will not" within the question itself, according to how you responded in the first section. If you answered "yes" in the first part then circle "will", if you answered "no" in the first part then circle "will not". The second step is to indicate how confident you feel about your answer. For example, if you are quite certain that your partner will agree with your musical taste but you still have a few doubts, circle the "will" option in the question and then indicate your level of confidence by circling #5 ("very confident"). In the same way, if your gut feeling tells you that your partner will not continue to like your musical taste but you feel very uncertain about that guess, circle the "will not" option within the question and indicate your lack of confidence by circling #2 (slightly confident).

If you indicated that you "did not know" what to expect from your partner in the first part, please leave the second part blank. By choosing the "I don't know" response, you have indicated that you have absolutely no idea about what to expect from your partner.

To sum up, there are three simple steps to answer each question. First, indicate your "gut level" expectations by circling a), b), or c). Next, circle the "will" or "will not" option that corresponds to your gut level expectations. Finally, on the scale provided, circle the number that best represents how confident you feel that your expectation will come true. Keep in mind that there are no right or wrong answers. We realize that you cannot completely predict the future, and we are aware that people do not always act in consistent or predictable ways. Despite these limitations, we are interested in your best estimates.

1. Do you expect that your partner will continue to accept you, even when you share your deepest, most intimate secrets with your partner?

   a) yes b) no c) I don't know what to expect from my partner

   How confident are you that your partner (will / will not) continue to accept you?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

2. Do you believe that, although your partner cares for you, your partner's primary concern will always be for his or her own welfare?

   a) yes b) no c) I don't know what to expect from my partner

   How confident are you that your partner (will / will not) be concerned primarily with his or her own welfare?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

3. In the future, when your partner does things that leave you feeling hurt, do you believe that your partner will be intending to cause you pain?

   a) yes b) no c) I don't know what to expect from my partner

   How confident are you that your partner (will / will not) be intending to hurt you?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

4. Though times may change and the future is uncertain, do you believe that your partner will always be ready and willing to offer you strength and support?

   a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) always be ready to offer you strength and support?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

5. Whenever you and your partner have to make an important decision in a situation that you have never encountered before, do you expect that your partner will take your needs into account?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will /will not) listen to your point of view and take your needs into account?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

6. Do you feel that your partner will, at some time in the future, want to leave your relationship?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) want to leave your relationship?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

7. If your partner were to bring up a conflict issue, do you think your partner would be trying to hurt you?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) be trying to hurt you?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

8. Regardless of what the future may bring, do you believe that your partner will be motivated to do what is best for you?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) be motivated to do what is best for you?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

9. Do you feel certain that your partner will open up to you and share personal things about him or herself, even when your partner might have reason not to?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) share personal things about him or herself with you?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

10. Although there may be times of conflict and tension, do you believe that your partner will always value you and appreciate you as a partner?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) always value you and appreciate you?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

11. When you and your partner discuss sensitive issues in the future, do you expect that your partner will honestly tell you what he or she is thinking and feeling?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) honestly tell you what he or she is thinking and feeling?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

12. In the future, when your partner makes important promises to you, do you expect that your partner will do his or her utmost to keep them?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) do his or her utmost to keep promises made to you?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

13. In general, do you expect that your partner will always be willing to give you love and affection, even though there may be times when you are having problems in your relationship?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) always be willing to give you love and affection?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

14. When your partner has needs or desires that are different from yours, do you expect that your partner will try to take advantage of you in order to get his or her way?

    a) yes b) no c) I don't know what to expect from my partner

    How confident are you that your partner (will / will not) try to take advantage of you?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

15. In the future, when you and your partner face sensitive issues together, do you feel certain that that your partner will take your feelings into account?

    a) yes b) no c) I don't know what to expect from my partner

    How confident are you that your partner (will / will not) take your feelings into account?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

16. Do you expect that your partner will care about you, come what may?

    a) yes b) no c) I don't know what to expect from my partner

    How confident are you that your partner (will / will not) care about you?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

17. Do you believe that your partner will have hidden motives when your partner does nice things for you?

    a) yes b) no c) I don't know what to expect from my partner

    How confident are you that your partner (will / will not) have hidden motives when your partner does nice things for you?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

18. Do you expect that your partner will continue to be deeply concerned about the things that are important to you?

    a) yes b) no c) I don't know what to expect from my partner

    How confident are you that your partner (will / will not) continue to be concerned about the things that are important to you?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

19. Do you expect that your partner will be willing to work on solving problems in your relationship, even if the issues are frustrating and painful?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) be willing to work on solving problems in your relationship?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

20. Do you feel certain that your partner will be willing to listen when you express your feelings or share problems that trouble you?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) listen when you express feelings or share problems?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

21. Do you expect that your partner will react in a positive way when you reveal your insecurities and weaknesses to him or her?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) react in a positive way when you reveal your insecurities and weaknesses?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

22. Do you expect that your partner will always be honest with you, especially when it comes to things that are important to your relationship?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) always be honest with you?

1	2	3	4	5	6	7
barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

23. When you share your problems with your partner, do you expect your partner to respond to you in a loving way?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) respond to you in a loving way?

1	2	3	4	5	6	7

barely confident	slightly confident	fairly confident	moderately confident	very confident	extremely confident	perfectly confident

24. Do you believe that your partner will work with you so that your relationship will be able to weather any storm?

a) yes b) no c) I don't know what to expect from my partner

How confident are you that your partner (will / will not) work with you so that your relationship will be able to weather any storm?

1 barely confident	2 slightly confident	3 fairly confident	4 moderately confident	5 very confident	6 extremely confident	7 perfectly confident

Scoring the Trust Scale

There are a number of possibilities for scoring the trust scale. In all cases, I strongly recommend that anyone using this scale enter the raw values into the statistical package on the computer and let the computer calculate each respondent's score. I will describe the procedure we have used to achieve a single index of trust by recoding the responses for each item on a fifteen point scale where 1 represents the least trusting (or most distrusting) response and 15 represents the most trusting (or least distrusting) response. For the following description, I will assume that the raw data consists of two variables for each of the 24 questionnaire items. These variables will be referred to as TA (referring to the first part of the question) followed by the question number (e.g. the response to part A of item 1 would be labeled TA01). TA would have three possible values: 1="yes", 2="no", and 3="I don't know". Similarly the second part of each item would be coded as TB followed by the question number. The TB variables for each of the 24 items would range from 1 to 7 where 1="barely confident" and 7="perfectly confident". The values for TA and TB are used to create a new variable for each question (i.e. T01 through T24).

Since some of the items on the scale are worded negatively and some positively, the first step is to reverse code the negatively worded items so that higher scores reflect higher trust values. In the procedure we use this is easily accomplished by recoding the values for TA such that 1=2 and 2=1 (the ability to recode values should be available on all statistical packages). The TA values for questions 2, 3, 6, 7, 14, and 17 should be recoded.

Conceptually, the least trusting response a person could endorse would be represented by perfect confidence in the partner's negative responses. Therefore, in the example above, the least trusting response would occur if a respondent circled "no" in the first part of the question and circled "7" in the second part. That is, the respondent would be indicating that he did not expect his partner to continue to accept him and he was perfectly confident of this belief. We use the following type of equation to rescore this value as "1":

If TA01=2, then T01=((TB01-8)*-1)

This equation would simultaneously recode the expectation of a negative response with a confidence level of "6" as a "2", a "5" as a "3", a "4" as a "4", a "3" as a "5", a "2" as a "6", and a "1" as a "7".

In the same way, the most positive response a person could endorse would be represented by the highest level of confidence in the partner's positive responses. In the example above, the most trusting response would occur if the respondent circled "yes" in the first part of the question and circled "7" in the second part (i.e. perfect confidence that his partner will continue to accept him). To rescore this value as 15, the following type of statement would be used:

If TA01=1, then T01=TB01+8

This equation also recodes a response of "6" as a "14", "5" as "13", "4" as "12", "3" as "11", "2" as "10", and "1" as "9".

Finally, if the respondent indicated in the first part of the question that he had absolutely no idea whether or not his partner continue to accept him, the second part of the question would remain blank and this response would be coded at the midpoint of the scale, "8", with the following type of statement:

If TA01=3, then T01=8

Therefore, using the combination of three statements described above, the response on each questionnaire item is converted to a number between 1 and 15. This will result in 24 new variables labeled T01 through T24.

e.g. If TA[01-24]=1, then T[01-24]=((TB[01-24]-8)*-1
If TA[01-24]=2, then T[01-24]=TB[01-24]+8
If TA[01-24]=3, then T[01-24]=8

The final step in computing a person's trust score involves simply averaging the responses from T01 through T24 to create a new variable that can be called T or Trust.

APPENDIX D

EXPERIENCES IN CLOSE RELATIONSHIPS SCALE - R

The authors of the Experiences in Close Relationships Scale recommended randomization of the items of the scale and alternating avoidance items with anxiety items. The resulting scale presented to participants was:

Instructions: The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it. Write the number in the space provided to the left, using the following rating scale:

Strongly Disagree	Slightly Disagree	Disagree Somewhat	Not Sure	Agree Somewhat	Agree Slightly	Strongly Agree
1	2	3	4	5	6	7

_____ 1. I prefer not to show a partner how I feel deep down.

_____ 2. I worry about being abandoned.

_____ 3. I am very comfortable being close to romantic partners.

_____ 4. I worry a lot about my relationships.

_____ 5. Just when my partner starts to get close to me I find myself pulling away.

_____ 6. I worry that romantic partners won't care about me as much as I care about them.

_____ 7. I get uncomfortable when a romantic partner wants to be very close.

_____ 8. I worry a fair amount about losing my partner.

_____ 9. I don't feel comfortable opening up to romantic partners.

_____ 10. I often wish that my partner's feelings for me were as strong as my feelings for him/her.

_____ 11. I want to get close to my partner, but I keep pulling back.

_____ 12. I often want to merge completely with romantic partners, and this sometimes scares them away.

_____ 13. I am nervous when partners get too close to me.

_____ 14. I worry about being alone.

_____ 15. I feel comfortable sharing my private thoughts and feelings with my partner.

_____ 16. My desire to be very close sometimes scares people away.

_____ 17. I try to avoid getting too close to my partner.

_____ 18. I need a lot of reassurance that I am loved by my partner.

_____ 19. I find it relatively easy to get close to my partner.

_____ 20. Sometimes I feel that I force my partners to show more feeling, more commitment.

_____ 21. I find it difficult to allow myself to depend on romantic partners.

_____ 22. I do not often worry about being abandoned.

_____ 23. I prefer not to be too close to romantic partners.

_____ 24. If I can't get my partner to show interest in me, I get upset or angry.

_____ 25. I tell my partner just about everything.

_____ 26. I find that my partner(s) don't want to get as close as I would like.

_____ 27. I usually discuss my problems and concerns with my partner.

_____ 28. When I am not involved in a relationship, I feel somewhat anxious and insecure.

_____ 29. I feel comfortable depending on romantic partners.

_____ 30. I get frustrated when my partner is not around as much as I would like.

_____ 31. I don't mind asking romantic partners for comfort, advice, or help.

_____ 32. I get frustrated if romantic partners are not available when I need them.

_____ 33. It helps to turn to my romantic partners in times of need.

_____ 34. When romantic partners disapprove of me, I feel really bad about myself.

_____ 35. I turn to my partner for many things, including comfort and reassurance.

_____ 36. I resent it when my partner spends time away from me.

APPENDIX E COPY OF SURVEY MONKEY ON LINE DEMOGRAPHICS

Demographic Section

Please answer some questions about you. Remember, this information is completely anonymous and will not be used for any other reason than this research study.

My age is

My gender is:

- 1- Male
- 2- Female

Education level

Education level

Select highest completed from drop down menu:

Other (please specify)

Please indicate if you are currently enrolled in a college or university.

- No, I have completed my education.
- A two year associates program.
- A local community college.
- A four year private or state college.
- A large 4 year university.

I am currently involved in a relationship.

- Yes
- No

My relationship status:

Status

Select one option from the dropdown menu:

Other (please specify)

I have been in my current relationship for the following number of months.

My ethnicity is:

	Ethnicity
Select from drop down menu:	

Other (please specify)

My family or personal income is:

	Income
Choose from drop down range.	

I believe that trust in close relationships is:

- Extremely important
- Necessary
- Difficult to maintain
- Impossible
- Impossible to regain after broken
- Other (please specify)

The level of trust in my current relationship is:

	High trust	Moderate trust	Low trust
Pick one			

I would rate the level of emotional mutuality and intimacy in my current relationship as:
*** mutuality refers to mutual feeling, investment, commitment, etc.**
*** intimacy referes to the amount of physical, emotional, social and intellectual closeness**

	High	Moderate	Low
Check one			

I would rate the level of my relationship satisfaction:

	High	Moderate	Low
Check one			

APPENDIX F

E-mail for participation in study.

Hello, my name is Karen Vaughn and I am a doctoral candidate at the University of Oklahoma Counseling Psychology program through the Department of Education. I am conducting my doctoral dissertation research on the Constructs of Trust in Close Interpersonal Relationships and would like to ask you to volunteer about 20 to 30 minutes of your time to complete an online survey. There should be no risk to you and participation is completely voluntary. Your responses will be completely anonymous so no one will know how you responded. The questions will pertain to issues of trust in a close relationship of your choosing so the content of the questions may cause you to evaluate your trust in this relationship. The benefits of this study may be that you are more thoughtful about the issue of trust in your relationship. The larger benefit may be that more information is obtained about this important topic. You may discontinue your participation any time you wish.

You will be asked to read an informed consent document, answer a few demographic questions, and then complete the survey on line.

I really appreciate your time and energy in assisting me with the completion of my dissertation. Your responses are important.

To participate in the study, please go to:

http://www.surveymonkey.com/s/listsrv

The University of Oklahoma is an equal opportunity institution.

Thank you,

Karen Vaughn

APPENDIX G

The University of Oklahoma®

OFFICE OF HUMAN RESEARCH PARTICIPANT PROTECTION - IRB

IRB Number: 11817
Inactivation Date: March 23, 2011

March 25, 2011

Karen Vaughn
Dept. of Educational Psychology
3821 Apex Court
Norman, OK 73072

RE: The Constructs of Trust in Close Interpersonal Relationships

Dear Ms. Vaughn:

Thank you for your correspondence to the Institutional Review Board (IRB) requesting inactivation of the above-referenced protocol. This letter is to confirm that the IRB has inactivated this protocol as of March 23, 2011.

Please note that this action completely inactivates all aspects and arms of this IRB Protocol. Should you wish to reactivate this study, you will need to apply for new IRB approval.

If you have any questions or need additional information, please do not hesitate to call the IRB office at (405) 325-8110 or send an email to irb@ou.edu.

Cordially,

Lynn Devenport, Ph.D.
Chair, Institutional Review Board

Ltr_Prot_Inact_PI

1816 West Lindsey, Suite 150 Norman, Oklahoma 73069 PHONE: (405) 325-8110

APPENDIX H
Inactivation of IRB 11817



The University of Oklahoma®

OFFICE OF HUMAN RESEARCH PARTICIPANT PROTECTION - IRB

IRB Number: 11817
Inactivation Date: March 23, 2011

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Cordially,

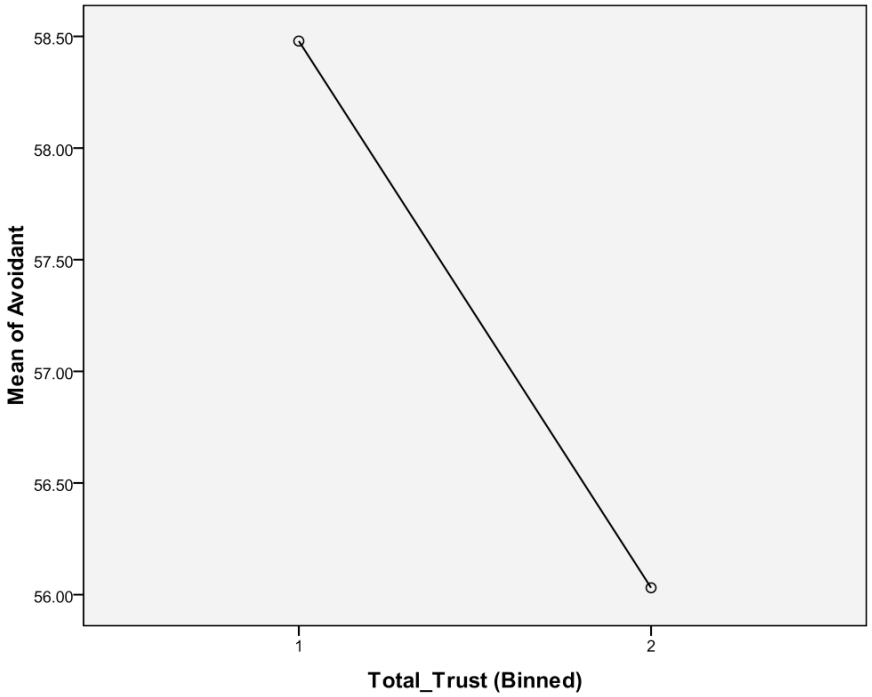
Lynn Devenport, Ph.D.
Chair, Institutional Review Board

Ltr_Prot_Inact_PI

1816 West Lindsey, Suite 150 Norman, Oklahoma 73069 PHONE: (405) 325-8110

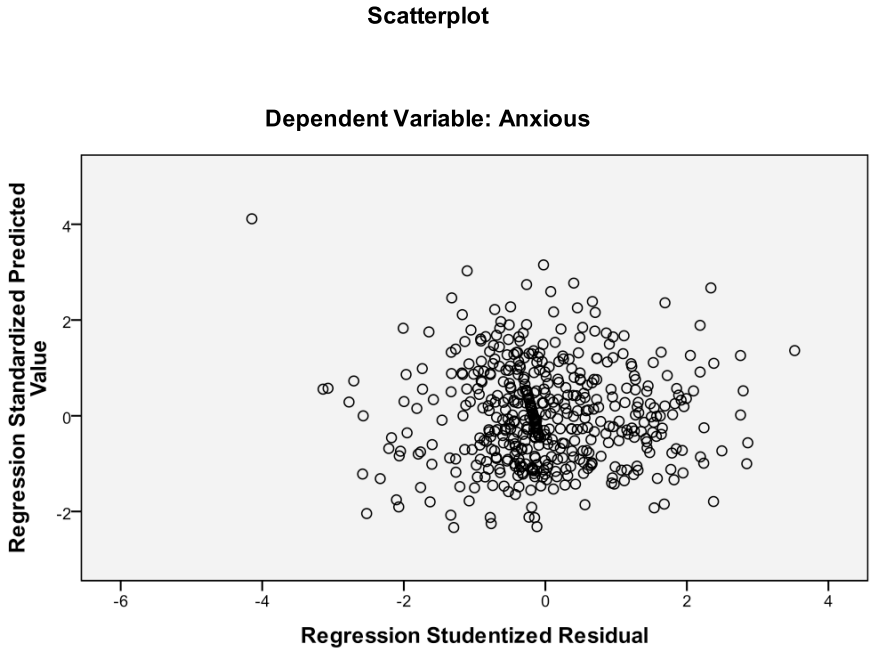
APPENDIX I
Additional data regarding Trust and Attachment Style

Fig. 5 Means of High and Low Trust on Avoidant Attachment Style



APPENDIX J
Additional Scatterplots

Fig. 6 Scatter plot for Trust factors and Avoidant Attachment



Style

Fig. 7 Predicted and observed Cumulative Probability

for factors on Anxious Attachment Style

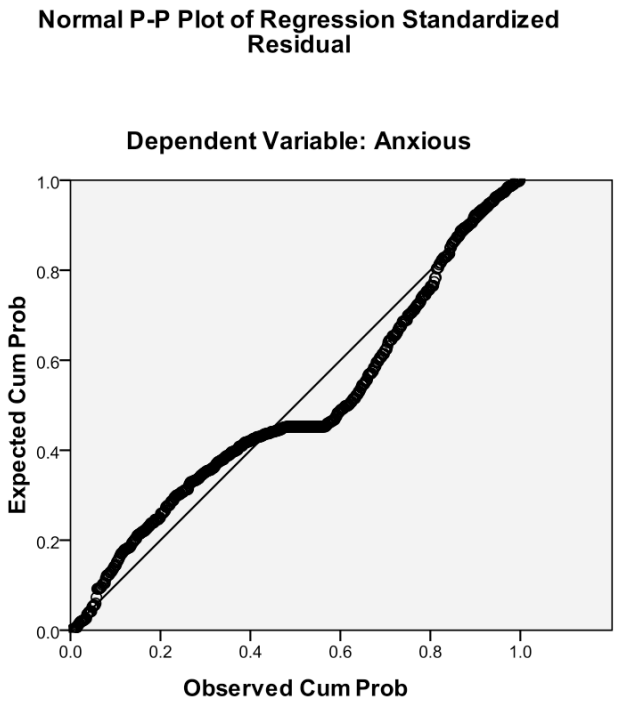


Fig 8 Scatterplot of Factors of Trust on Total Trust

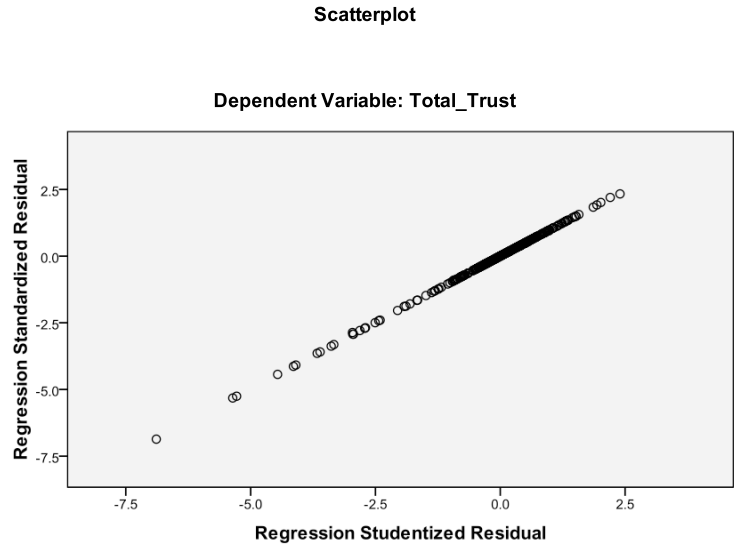


Fig. 9 Expected and Cumulative Probabilities of

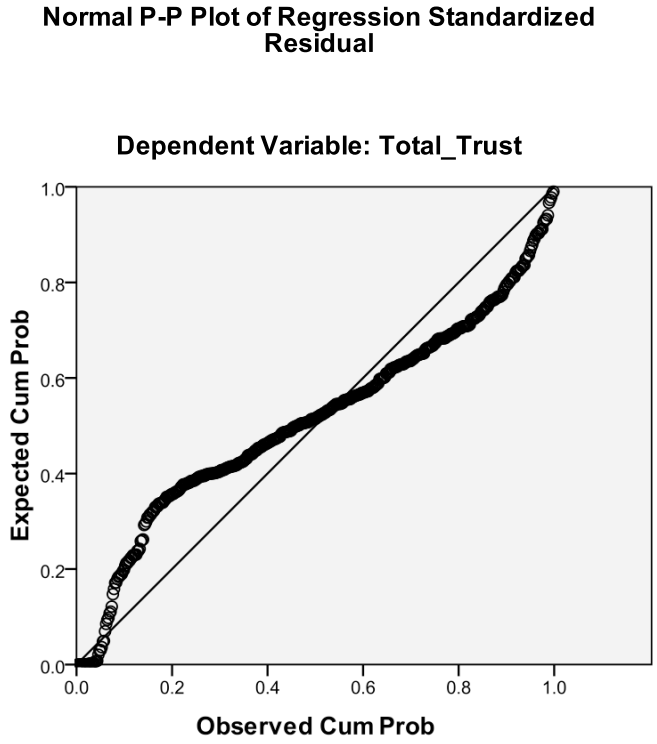


Fig. 10 Regression Total Trust and Total Security

