Investing in Me or You:

A Novel Role of the Attachment System in Self and Other Tradeoffs

by

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ABSTRACT

Research on attachment in adults began by assuming parallels from attachment as a behavioral system for using relationships to balance the tradeoff between safety and exploration in infants, to the same tradeoff function in adults. Perhaps more pressing, for adults, are the novel social tradeoffs adults face when deciding how to invest resources between themselves and their close relationship partners. The current study investigated the role of the attachment system in navigating two such tradeoffs, in a sample of ASU undergraduates. In one tradeoff condition, participants had the option of working on puzzles to earn either themselves or their closest friend a monetary reward. In the second tradeoff condition, participants worked to earn monetary rewards for a close or new friend. Analyses showed no evidence of attachment avoidance predicting prioritizing redistributing money to a close friend in either condition. While there was no effect of anxiety on prioritizing one's close friend over one's self, there was a marginal effect in both prioritizing one's close friend over a new friend when redistributing money and starting on the close friend's word search first. Although attachment style largely did not predict earning or redistributing monetary rewards in these two relationship tradeoffs, implications for how these results fit within the broader theoretical perspective are discussed.

DEDICATION

To my grandmother Betty Sapp, and grandfather Richard Yee, your bravery, tenacity, and hardwork made all of this possible.

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INTRODUCTION

Attachment theory describes a behavioral system that balances the tradeoffs between an infant's need to explore the environment and their need to remain protected by a caregiver. John Bowlby (1969/82, 1973/83) suggested that this same system functions throughout the lifespan. Research on adults suggests that Bowlby was correct, and use of his theoretical framework has spawned a large amount of research on attachment in adults. However, much of this research stemmed from an attempt to replicate findings from the infant attachment literature in adults. While this approach has yielded substantial amounts of research, it often overlooks developmental differences that humans experience from infancy to adulthood. Changes in the self and in close relationships present novel competing relationship investment opportunities for adults that are not relevant for infants. The attachment system presents an ideal, pre-existing system for managing these novel challenges.

It is possible that the attachment system was exapted to manage novel tradeoffs between investing in a close relationship partner versus investing in one's self, as well as investing in an existing partner and a potential new relationship partner. This study focuses on the degree to which the attachment system plays a role in two such tradeoffs: investing in one's existing close friend versus the self, and investing in an existing close friend versus a new friend. The study examines the extent to which attachment style differences predict how individuals balance tradeoffs between these potential targets of investment.

THE FUNCTION OF THE ATTACHMENT SYSTEM IN INFANTS

When Bowlby originally conceptualized the attachment behavior system, he proposed it as a behavioral solution to an infant's need to balance safety with exploration (1969/82, 1973/83). Bowlby argued that humans' prolonged dependency creates a unique problem. As infants and children, humans require a significant amount of protection from threats in the environment. At the same time, this need for protection must be balanced with the ability to explore opportunities within that environment. According to Bowlby, the attachment system employs three behaviors in order to help manage these tradeoffs: proximity seeking, safe haven, and secure base. Overall, an infant is motivated to constantly stay in close physical proximity to her caregiver should a threat occur. Thus, being out of sight or physically far from a caregiver is itself viewed as threatening to an infant. If an external threat does appear in the environment, the attachment system motivates infants to retreat to caregivers as a safe haven, to deal with the threat and alleviate distress. Conversely, the same system motivates infants to use the caregiver as a secure base from which to explore the environment. An infant engaging in exploration frequently makes eye or verbal contact with the caregiver to ensure that the caregiver is attending, and close enough to provide support if needed. These three behaviors collectively ensure that a child is able to seek safety from one's caregiver if a threat appears in the environment, while still allowing the infant to investigate the opportunities it presents.

Bowlby proposed that internal working models govern the attachment system, enabling it to function quickly and efficiently in novel environments (Bowlby, 1969/82).

These internal working models store and organize information regarding an individual's attachment figures and their availability to respond in times of need (Bretherton & Munholland, 1999). These models can also be accessed in order to predict likely outcomes in future scenarios. Bowlby noted that an individual forms working models of both the self and the attachment figure. The working model of the self is organized around "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" (Bowlby, 1973, p. 238). The self model is responsible for assessing one's own likelihood to be helped by others based on past experiences. The working model of others is organized around "whether or not the attachment figure is judged to be the sort of person who in general responds to calls for support and protection," (Bowlby, 1973, p. 238).

Bowlby suggested that patterns of interactions with caregivers shape these working models over time. Infants whose needs are reliably and appropriately attended to develop models of the self and caregiver in which the infant is worthy of love, and the caregiver can be counted on in times of need. On the other hand, infants whose caregivers were not reliably available, or who do not respond appropriately to their needs, develop negative internal working models of the self and/or the attachment figure (Bretherton, Ridgeway, & Cassidy, 1990.) Thus, these internal working models are responsible for adjusting the infant's behavioral response to balancing safety and exploration to fit the caregiving environment.

Ainsworth and colleagues (1978) developed a research paradigm called the Strange Situation to measure variations in patterns of infant behavior when managing this

tradeoff. Each of the three *attachment styles* of infant behavior that emerged in this situation is a functional response to a particular caregiving environment (Main, 1995). When confronted with changes in caregiver presence and absence, "secure" infants had caregivers who reliably and sensitively responded to the infant's needs. Thus, secure infants were able to seek proximity and comfort during stressful times, while still maximizing exploration of the environment when appropriate (Isabella & Belsky, 1991). "Anxious-ambivalent/resistant" infants, however, had caregivers who were less consistent in responding to their infants' cues, which led these infants to exhibit a clinging and resistant pattern of behavior while failing to explore their environment (Ainsworth et al., 1978; Ainsworth, 1984). This set of reactions in anxious infants maximizes chances that a caregiver will respond during threatening situations (Main, 1990; Belsky, Rovine, & Taylor, 1984). "Anxious-avoidant" infants' had caregivers who rejected or ignored the infant's display of attachment behavior (Main, 1979). To accommodate these changes in caregiving behavior, avoidant infants avoided or ignored the caregiver during reunions, and engaged in only superficial play (Main, 1979). Main (1995) theorized that avoidant infants' responses during reunion allowed the infant to maximize what proximity is possible given this kind of caregiver, while ensuring the infant is not actually rejected. Similar to anxious infants, avoidant infants' behavior reflects a prioritization of safety over exploration attuned to their caregiving environment. Collectively, these three patterns of infant responses display behavior organized around achieving safe exploration that is tailored to the infant's caregiver.

CONTINUITY OF THE INFANT ATTACHMENT SYSTEM AS A FRAMEWORK FOR UNDERSTANDING ADULT RELATIONSHIPS

Bowlby's suggestion that the attachment behavioral system is still active in adults prompted researchers to investigate the role of attachment in adult relationships. In social psychology, research on adult attachment began by asking whether romantic partners might help fulfill the same role as parents, in balancing needs for safety and exploration in adulthood (Hazan & Shaver, 1987). When describing these functions, researchers sought parallels to the parent-infant attachment functions. Rather than physical safety, the safe haven function in adults became provision of social support during stress (Fraley & Davis, 1997; Collins & Feeney, 2000). Similarly, exploration of the environment in infants became work and goal-related achievement in adults (Hazan & Shaver, 1990; Feeney, 2000). Research seeking to extend this parallel first examined whether adults' descriptions of their romantic relationships paralleled the patterns of variation in infant attachment styles (Hazan & Shaver, 1987). For example, a secure description of an adult was one who found it easy to get close in relationships, with low fear of abandonment. The description of an anxious adult was someone who often worried about partners wanting to leave them, and wanting to become intensely close with romantic partners. Avoidant adults were described as those who found it difficult to trust others, and experienced discomfort with intimacy (Hazan & Shaver, 1987).

Researchers have demonstrated that these conscious descriptions of adults' approaches to close relationships predict similar variations in functional behavioral patterns that appeared in the parent-infant attachment research. Beginning in adolescence

a transition begins, from relying on parents as the primary figures serving attachment functions, toward relying more on friends, and eventually romantic partners (Fraley & Davis, 1997). Beginning at ages 12-15, adolescents low in attachment insecurity typically list their best friend as the person they most want to be with, or get advice from when they are upset (Markiewicz, Lawford, Doyle, & Haggart, 2006). During ages 16-19, romantic partners begin to take on more attachment functions of emotional support and proximity seeking, with best friends remaining an important secondary source of support throughout young adulthood (Trinke & Bartholomew, 1997). Importantly, throughout young adulthood, individuals commonly report at least five relationships they consider to be attachment relationships. Although in later adult years romantic partners tend to become the primary attachment figure, adults' relationships with their friends, siblings, parents, and children continue to meet the criteria for attachment relationships throughout the lifespan (Doherty & Feeney, 2004).

Attachment research in adults has not only demonstrated that adult close relationships fulfill important attachment functions, but has also extended to identifying complex patterns in the ways that adults use close others for these functions (e.g. Fraley & Shaver, 1998; Ben-Naim, Hirschberger, Ein-Dor, & Mikulincer, 2013; Simpson, Rholes, Orina, & Grich, 2002). Collectively, examining attachment style differences in using close others as a safe haven for emotional support during stressful situations comprises one of the largest proportions of the adult attachment literature (for reviews, see Shaver & Mikluincer, 2007; Fraley & Shaver, 2000). In contrast, far fewer studies have examined attachment style differences in how adults use close others as a secure

base (Waters & Cummings, 2000). In these studies, exploration of the environment takes the form of pursuing work-related goals or preparing to interact with opportunities in the environment (Feeney, 2004; Yee & Shiota, 2015). Most secure base research instead has focused on explicit cognitions of what the secure base script entails in adults, rather than studying whether adults' close relationships facilitate actual exploration of the environment (e.g. Waters & Waters, 2006; Mikulincer & Shaver, 2001).

Although conceptualizing adult attachment as a direct parallel to infant attachment has proved successful in generating a large body of theory-driven research, this approach has important limitations. The absence of studies examining the secure base function in adults is one such limitation. While the most relevant form of exploration for infants is exploration of the physical environment, exploration of the social environment is much more critical for adults. Bowlby clearly laid out a behavioral pattern for how infants can use attachment figures to aid in their exploration. Given the change in relevant environment, it can be difficult for researchers to conceptualize how close relationships may play a role in facilitating this particular function in adults. As evidenced by the lack of literature on this over the past few decades, translating from infants to adults either the importance of physical exploration, or what an analogous set of behaviors would look like in the social domain, has proved difficult. Close relationships play important roles in promoting adult well-being beyond provision of comfort and management of stress. Because many of these benefits are unique to adults, as compared to infants, researchers have done little to understand how the attachment

system plays a role in relationships' provision and facilitation of important opportunities in adults.

Additionally, while an infant attachment perspective has provided an important foundation for understanding how individuals behave within specific relationships – particularly romantic relationships - adult attachment research made little progress in terms of investigating attachment patterns across the multiple types of relationships available to adults. Early on in the attachment literature, Ainsworth (1978) noted that the study of attachment for infants is confined to how an infant responds within a relationship to a particular individual. As humans develop, the array of relationship types and number of possible relationships they can have increases dramatically (Oishi & Kesebir, 2010). As a result, adults must constantly manage multiple close and meaningful relationships, which frequently have conflicting goals and needs (Burton-Chellew & Dunbar, 2015). Conflicts arise because unlike infant relationships, adult close relationships require a heavy amount of cognitive resources and effort to build and maintain each one (Fraley & Shaver, 2000). As a result, conflicts may occur both between allocating resources between one's self and one's close other (Tilden & Galyen, 1987), or between one's existing close other and a new, potential close other (Dinidia & Canary, 1993). The attachment system may serve an important role in mediating these kinds of conflicts. By choosing to focus exclusively on similarities between infants and adults, the existing theoretical approach in attachment literature neglects important aspects of and challenges in adult relationships, and their implications for attachment behavior. Existing research clearly demonstrates that the attachment behavior system is active and heavily influential

in adults' close relationships. However, it is important to expand the scope of understanding to consider new social challenges the attachment system may also be equipped to address in adult relationships.

A NEW FUNCTION OF THE ATTACHMENT SYSTEM IN ADULTS

The shift in an individual's needs and developmental capabilities, combined with shifts in attachment relationships, creates two novel relationship challenges for adults. Both of these challenges occur because adults, unlike infants, must allocate resources across multiple domains and multiple relationships. The same attachment system that balances an infant's most pressing tradeoff may have been exapted to manage two of the novel social tradeoffs that adults face.

Self versus attachment figure tradeoff

Given the developmental changes in adults and their attachment relationships, a new social tradeoff in adulthood is balancing investment in the self versus investment in attachment figures. Close relationship partners are instrumental in providing resources for adults, such as perceived social support and other resources. However, building and maintaining these relationships requires significant time and energy investment. Devoting time and energy to these relationships may come at a cost to one's own gain. For example, an individual may need to sacrifice a more prestigious job in order to remain close to a relationship partner. Similarly, time spent celebrating a friend's success is time that could be spent working towards one's own work deadline. The attachment system's focus on directing self-behavior in regard to relationship partners makes the attachment

system ideally equipped to balance the tradeoffs of resource allocation in others versus the self.

Prior research suggests that secure individuals' mental representations of self and others should result in an equal balance of investment between the self and attachment figures. These mental representations of self and other span two continuous dimensions of insecurity: anxiety and avoidance (Brennan, Clark, & Shaver, 1998). On one hand, anxiety indexes an adult's belief that the self is unworthy, and rejection is likely. Avoidance, on the other hand, captures an adult's belief that others are unreliable, and discomfort with intimacy. Research demonstrates that securely attached adults have mental representations of both the self and others as capable of helping when needed, with low levels of both types of insecurity. Secure individuals have accumulated experience of successful problem solving and emotion management, and see themselves as capable of dealing with stress (Berant, Mikulincer, & Florian, 2001; Radecki-Bush, Farrell, & Bush, 1993). Additionally, secure individuals accumulate experiences of positive support that lead them to have models of others as willing and able to provide support when needed (Shaver & Hazan, 1993). These models should facilitate secure individuals in being willing to invest not only in themselves, but also in their relationship partners. Studies on workplace satisfaction and relationships show that secure individuals report higher job satisfaction and seeking out new work challenges while simultaneously having the best work-life balance (Hazan & Shaver, 1997; 1990). Evidence from existing literature suggests that secure individuals should be most likely to strike a balance between investing in themselves and in their attachment figures.

Anxiously attached adults' negative model of the self, and more positive model of others, may shift their balance in investment towards prioritizing attachment figures over themselves. However, the evidence to support this hypothesis remains mixed. On one hand, anxious individuals frequently ruminate on and exaggerate negative affect in order to elicit more support from attachment figures (Shaver & Mikulincer, 2002; Mikulincer & Shaver, 2007). Similarly, these individuals are less likely to perceive themselves as either capable or worthy of coping with stressful situations (Mikulincer, 1995; Bretherton & Munholland, 1999). Instead, they appear to place their trust in their partners' ability to deal with stressors. For example, anxious individuals exhibit heightened physiological and self-reported distress when separated from a romantic partner during a lab task (Feeney & Kirkpatrick, 1996), and continuously over-rely on their romantic partners for emotional support (Shaver & Mikulincer, 2002). This evidence suggests that anxious individuals require a lot of resources from their attachment figures. Because of this intense investment from their attachment figures, anxious adults may invest heavily in their partners at the beginning of a relationship. However, attachment anxiety is also the most associated with high perceptions of conflict in one's romantic relationships (Campbell, Simpson, Boldry, &, Kashy, 2005). Perceptions of conflict may lead anxious individuals to emphasize investment in themselves if their concern that they will be abandoned becomes activated. Overall, anxiety may lead to increased investment in one's relationship partner. However, this may depend on whether the adult's fear of abandonment is activated.

In contrast, avoidantly-attached adults' negative view of others may shift their resource tradeoff towards investing in themselves over their attachment figures. Research suggests that individuals high on avoidance have negative views of others and more positive views of themselves. Based on these mental representations, individuals high on avoidance should be those most likely to prioritize investing in themselves over their relationship partners. Although the direct tradeoff has never been tested, studies on how avoidant individuals respond in relationships supports this hypothesis. Hesse (1999) found that higher avoidance predicts a diminishment in the importance of all close relationships and previous experiences in close relationships. This reduction in importance can be explained in terms of findings that avoidant individuals are also less likely to experience a sense of reward or comfort from close relationships. In one study, increased avoidance predicted reduced feelings of contentment when participants were instructed to savor interpersonal events about family and friends, as compared to events like work achievements and leisure activities (Palmer & Gentzler, 2017). Additionally, increased avoidance predicts reduced perception of support messages as emotionally supportive, as compared to securely attached participants (Collins & Feeney, 2004). These individuals also generated fewer details of how others might give them support in imagined distress scenarios (Mikulincer, Shaver, Sapir-Lavid, & Avihou-Kanza, 2009). Avoidant individuals' prioritization of work over close relationships and personal life tentatively suggests that avoidant adults prefer to invest first in themselves (Hazan & Shaver 1987; 1990). This set of studies suggests that avoidant individuals reap fewer benefits, perceived or otherwise, from close relationships. When faced with a tradeoff

between investing in themselves and others, avoidant individuals' reduced perception of close relationships as valuable and rewarding should lead them to prioritize investing in themselves.

Current Versus Potential New Attachment Figure Tradeoff

Unlike infants, adults face a challenge in balancing investment in building new relationships versus maintaining existing relationships. An infant has little choice in which attachment figures are willing to invest in her. An adult, however, has the opportunity to seek out new relationships, or to actively direct investment toward or away from a current relationship. On one hand, a new relationship represents an additional potential source of support. Unlike an existing relationship, however, new relationships can be more unpredictable. A new relationship partner may be unwilling or unable to reciprocate one's own investment. Although current relationships may be more reliable in reciprocating support, reliance for support from a single partner carries its own set of drawbacks. Having only one relationship partner may leave an individual vulnerable if that partner moves, dies, or finds a new relationship partner (Burton-Chellew & Dunbar, 2015). Adults face tradeoffs in the number and quality of relationship partners they choose to invest in. The attachment system's accumulated representations of how supportive and available others have been and are likely to be make the attachment system well suited to balancing investment in building new versus maintaining existing relationships.

Securely attached adults should have positive beliefs about their existing attachment figures, as well as a positive belief that others in general will be helpful. As a

result, securely attached adults should be willing to invest across multiple kinds of relationships. In a daily diary study of adolescents, securely attached adolescents had a comparable number of interactions with their close relationship partners as with strangers (Feeney, Noller, & Patty, 1993). In college students, secure attachment is associated with reduced amount of conflict and increased conflict management skills with best friends and romantic partners (Creasey, Kershaw, & Boston, 1999). Secure adults are also most likely to spend time with and be close with friends and romantic partners (Tidwell, Reis, & Shaver, 1996). These studies suggest that adults low in attachment insecurity should be willing to balance investing in multiple kinds of relationships.

When looking at evidence for how individuals high in anxiety prioritize existing versus potential relationships, most evidence focuses on investment in an attachment figure in isolation rather than in comparison to alternatives. Preliminary evidence shows that anxiously attached adults are much more likely to exhibit clinging-type behavior towards existing relationship partners. Studies demonstrate that individuals high in anxiety expend a lot of cognitive resources worrying about whether their attachment figures might abandon them (Mikulincer & Florian, 1998). In looking at daily interactions, however, researchers found that anxious adults exhibit much higher variability in reported emotions and attributions of interactions with friends and romantic partners than other attachment styles (Tidwell, et al., 1996). Thus, while it is reasonable to suspect that anxiety may lead an individual to prioritize a relationship they already have, the variability also associated with attachment anxiety leaves this hypothesis largely exploratory.

Predictions regarding implications of attachment avoidance for this tradeoff are more clear-cut: avoidance should lead individuals to invest more effort in building new potential relationships than in enhancing existing ones. For example, individuals high in avoidance are more likely to engage in short term sexual relationships compared to more emotionally close long-term romantic relationships (Brennan, Shaver, & Tobey, 1991). Avoidance is also associated with higher interest in interactions with romantic alternatives compared to interest in interactions with current romantic partners (Overall & Sibley, 2008). Avoidantly attached adults also seem to have mechanisms that suppress investment in their existing romantic relationships. For example, avoidance predicted more effective suppression of negative reactions after imagining a breakup scenario (Fraley & Shaver, 1997). These studies demonstrate that avoidance is associated with less emotional and effortful investment in existing romantic relationships, while also being more willing to engage in short-term relationships. Although evidence addressing this tradeoff comes almost exclusively from the romantic partner literature, it is reasonable to conclude that avoidance may lead to less prioritizing of one's close attachment figure rather than a new relationship.

THE CURRENT STUDY

The current study investigated the role of the attachment system in balancing how adult individuals invested effort to earn monetary resources in current close relationship partners (i.e., attachment figures) versus investing in themselves and potential new relationship partners, in tradeoff situations. In this study, existing attachment figures were

operationalized as close friends who fit the description of an attachment figure, and new relationships were operationalized as friends who were newer, and did not yet meet the description of an attachment figure. Participants were presented with one of two tradeoffs. In the first, individuals had the choice to invest their efforts between earning monetary rewards for themselves, versus rewards for their close friend. In the second tradeoff, participants were given a choice between investing their efforts in earning monetary rewards for their close friend versus their new friend.

Hypotheses:

1. When forced to prioritize between investing in oneself versus one's close friend:
    a. Greater attachment anxiety should predict heightened priority of investment in one's close friend over one's self.
    b. Greater attachment avoidance should predict reduced priority of investment in one's close friend over one's self.
2. When forced to prioritize between investing in a potential new relationship versus an existing attachment relationship:
    a. Greater attachment anxiety should predict heightened priority in investment in one's close friend over one's new friend.
    b. Greater attachment avoidance should predict reduced priority of investment in one's close friend over one's new friend.

METHOD

Participants. This study aimed to use 364 ASU undergraduate students, with approximately equal numbers of males and females. Target sample size was determined based on a power analysis from a preliminary pilot study. In the pilot study, R^2 ranged from .06 - .17. GPower was used to calculate the needed sample size for a Partial Eta^2 of .06 with 80% power, and an alpha of .05. For the purposes of the current analyses, 396 students were collected. Of those, 88 were excluded for being non-English speakers, failing the attention check, needing to alter the new friend description, or incomplete data from an interrupted study session. The remaining sample included 133 males and 175 females for a total sample of 308. The average age was 19.19 years (*SD* = 1.67). 47.4% of the sample identified as Caucasian, 25.3% as Hispanic/Latino, 9.7% as Asian, and 17.5% as Other.

Measures

Experiences in Close Relationships – Short form (ECR-S). This questionnaire is an altered version of a measure of individual differences in attachment anxiety and avoidance, with 12 questions about romantic relationships (Wei, Russell, Mallinckrodt, & Vogel, 2007). This questionnaire was altered to address friendships instead of romantic relationships. The questionnaire was composed of two subscales. Six questions averaged together form the anxiety subscale, which assesses concerns about abandonment (e.g., "I need a lot of reassurance from my friends," *M* = 3.39*, SD* = 1.07, α = .72). The other six

items average to form the avoidance subscale, which measures one's discomfort with intimacy (e.g., "I want to get close to my friends, but I keep pulling back," $M = 2.74$, $SD = 0.98$; $\alpha = .75$).

Adult Attachment Questionnaire (AAQ). This questionnaire was included as an alternate way to measure attachment anxiety and avoidance through 17 questions (Simpson, Rholes, & Phillips, 1996). This questionnaire was altered to address friendships in general instead of romantic relationships. The questionnaire was composed of two subscales. Nine questions averaged together form the anxiety subscale (e.g., "Others often are reluctant to get as close as I would like," $M = 3.19$, $SD = 1.07$, $\alpha = .83$). The other eight items average to form the avoidance subscale, which measures one's discomfort with intimacy (e.g., "I don't like people getting too close to me," $M = 3.49$, $SD = 1.09$; $\alpha = .80$).

Investment Word Searches. In order to measure the degree of investment in the close friend versus the self or new friend, each participant was given a pair of word searches. The reward for each of the word searches went to a different recipient, based on condition. The monetary reward for each recipient was based on the number of successfully found words on the word search. For example, if a participant found five words on her own word search, and 10 words on her close friend's word search, her close friend received a larger reward than she received for herself. All of the word searches were pretested for difficulty, total number of words, and length of time to completion.

The word searches were counterbalanced across condition. Rewards were distributed through Amazon gift cards through an email address or phone number.

Word Search Manipulation Check. In order to assess whether the word search task was perceived as effortful, but not threatening, participants selected how well seven words described the task on a scale of 1 (Strongly disagree) to – 7 (Strongly agree. The words included: difficult (M = 3.67, SD = 1.40), fun (M = 5.20, SD = 1.36), anxiety-provoking (M = 3.27, SD = 1.77), challenging (M = 4.26, SD = 1.38), threatening (M = 1.43, SD = 0.92), engaging (M = 5.50, SD = 1.30), and exciting (M = 4.74, SD = 1.52).

WHOTO (Fraley & Davis, 1997). This questionnaire was given to participants as a manipulation check to assess the degree to which each kind of friend fulfilled traditional attachment functions for the participant. All questions started with the stem "To what extent is your friend the person who you…" with two questions for each of the three common attachment functions: proximity seeking (e.g., "… are most likely to spend time with?"), safe-haven function (e.g., "… most want to be with when you are feeling upset"), and secure-base (e.g., "… would want to tell first if you achieved something good?"). Questions were answered on a 1 (least matches the description) to 7 (best matches the description) scale. All six items were averaged to assess the degree to which a friend fulfilled overall attachment needs. Participants completed these items for close friends (M= 5.42, SD=1.15) as well as new friends for those in the close-friend versus new-friend tradeoff condition (M= 3.47, SD=1.26).

Rusbult Investment Model Scale (Rusbult, Martz, & Agnew, 1988). In order to assess participants' specific perceptions of their relationship with their close friend, participants completed an altered version of this questionnaire replacing the term "romantic partner" with "close friend." This questionnaire contained four subscales each measuring a different aspect of the relationship with the close friend: satisfaction, commitment, alternatives, and investment. The Satisfaction subscale measured the participant's self-reported positive or negative view of the relationship with the participant's close friend with five items (ex: My relationship is close to ideal). The Commitment subscale assessed overall levels of long-term commitment to the participant's close friend in six items (ex: I want our friendship to last for a very long time.) The Alternatives subscale used five items to measure a participant's perception of being able to meet her relationship needs from friendships in her life other than with her close friend (ex: my alternatives to our friendship are close to ideal). The Investment subscale contains five items measuring the degree to which a participant sees invested time, shared identity, and shared memories as a part of her current relationship with her close friend (ex: I have put a great deal into our relationship that I would lose if the relationship were to end.) Participants indicated their agreement with all items on a scale ranging from 1 (don't agree at all), to 9 (agree completely). This investment scale was included as a source of potential moderators in the relationship between attachment and investment strategy.

IOS (Aron, Aron, & Smollan, 1992). Participants selected which of seven sets of overlapping circles best represented how close they felt to their friend on a scale of 1

(circles not overlapping at all) to 7 (circles almost completely overlapping). Participants answered this question both for their close and new friend. This item was included as another potential moderator between attachment and investment strategy.

RESULTS

Analysis Strategy

As seen in Table 2, the anxiety subscales of the ECR-S and AAQ were significantly positively correlated. In order to reduce the overall number of models run, the anxiety subscales from both the ECR-S and AAQ were averaged together to create a single attachment anxiety score. The same was done with attachment avoidance.

To operationalize prioritizing one recipient over another, a proportion was created for the amount earned for (or redistributed to) one's close friend divided by the total amount earned. Creating a proportion helped to address differences in skill level with the word search task. After examining the histograms for the proportions earned and redistributed in both tradeoffs, none of the four proportions were normally distributed (see Figures 1-4). Given the distributions of all four dependent variables, binary logistic regression and ordinal regression were considered better options than linear regression (Coxe, West, & Aiken, 2013). Analyses using ordinal regression with the dependent variable split into three categories failed to pass the test of parallel lines. Failing to pass this test indicated that more than one regression equation was needed to explain the data as a three-category model. Thus, an ordinal regression was not a good fit for the data.

Binary logistic regression was both a better fit for the collected data, as well as more conceptually close to representing prioritizing one recipient over the other.

Each binary logistic regression model included three predictors: attachment anxiety, avoidance (each averaged from ECR-S and AAQ), and their interaction. The models also controlled for sex, age, and total amount earned (or redistributed when applicable). All continuous variables were centered before entering them into the models. Each model predicted the likelihood of being in a group that prioritized amount for one's close friend compared to being in a group that prioritized one's self (or one's new friend for Tradeoff 2).

The two groups were determined for each model from the original intention of the research question regarding whether or not attachment style affected prioritizing one recipient over the other. To capture this conceptualization, all proportions of .49 or lower were coded as one group. This group reflected those that earned or redistributed less than half of their money to a close friend. All proportions of .51 or higher were coded as the second group, or those who earned or redistributed more than half of their money to their close friend. This bifurcation strategy eliminated those who earned or redistributed equal amounts to both recipients, which ranged from 24-40 participants depending on the condition (see Table 2 for frequencies). In the first tradeoff, this coding process meant that the first group included those who prioritized earning money for (or redistributing to) one's self, while the second group included those who prioritized their close friend. Thus, positive regression coefficients indicate that as each predictor increases, so too does likelihood of being classified in the group that prioritized earning money for the close

friend. In the second tradeoff, the first group included those who prioritized earning money for (or redistributing to) one's new friend, while the second group included those who prioritized their close friend. Thus, positive regression coefficients indicate that as each predictor increases, so too does likelihood of being classified in the group that prioritized redistributing money to the close friend. Separate binary logistic regressions were conducted for proportion earned and for proportion redistributed, and each tradeoff was also analyzed as a separate set of regressions for a total of four logistic regression models (see Table 5 for full regression analyses).

Earned for Self Compared to Close Friend

The overall regression model predicting likelihood of earning more for one's self compared to one's close friend was not significant ($\chi 2(6) = 2.41$, p = .88, Nagelkerke R^2 = .03). Within the model, there was no main effect of anxiety (B = -.09, p = .67), avoidance (B = -.12, p = .56), or their interaction (B = .07, p = .72).

Redistributed Self Compared to Close Friend

The model predicting the likelihood of redistributing more to one's self compared to one's close friend was not significant ($\chi 2(6) = 2.04$, p = .92, Nagelkerke. R^2 = .03). The results after participants redistributed the money showed no main effect of anxiety (B = .18, p = .38) or avoidance (B = -.22, p = .31). Their interaction was also not significant (B = .08, p = .69).

Earned for New Friend Compared to Close Friend

The model predicting the likelihood of earning more for one's new friend compared to earning more for one's close friend earned was not significant ($\chi 2(6) = 4.03$,

p = .67, Nagelkerke R^2 = .04). There was no main effect of anxiety (B = .15, p = .50), avoidance (B = -.24, p = .31), or their interaction (B = -.16, p = .52).

Redistributed to New Friend Compared to Close Friend

The model predicting the likelihood of redistributing more to one's new friend compared to one's close friend was not significant ($\chi2(6) = 8.23$, p = .22, Nagelkerke. R^2 = .09). In the model, there was a marginal main effect of anxiety, such that higher self-reported anxiety predicted moderately higher likelihood of being in the group that redistributed more money to one's close friend (B = .48, p = .07). However, there was no main effect of avoidance (B = -.14, p = .63), and the interaction was also not significant (B = -.36, p = .23).

Word Searches

Two additional binary logistic regression models were run in order to examine the effects of attachment style on which word search participants started on first. The models predicted which recipient's word search the participant started on first from the same three predictors as the above models. The models also controlled for participant sex and age.

Word Search Started for Self Compared to Close Friend

The first model predicted whether participants were more likely to start on their own compared to their close friend's word search first (see Figure 6). The overall model was not significant ($\chi2(5) = 4.18$, p = .52), with a Nagelkerke R^2 of .05. There was neither a main effect of anxiety (B = .26, p = .19) nor avoidance (B = -.12, p = .58). The interaction between anxiety and avoidance was also not significant (B = .33, p = .12).

Word Search Started for New Friend Compared to Close Friend

The second model predicted whether participants were more likely to start on their new friend's word search compared to their close friend's word search. The overall model was not significant ($\chi 2(5) = 10.62$, $p = .06$), with a Nagelkerke R^2 of .09. There was a marginal main effect of anxiety, such that those who reported higher anxiety were marginally more likely to start their close friend's word search ($B = .35$, $p = .09$). There was no main effect of avoidance ($B = -.19$. $p = .36$), and no interaction between anxiety and avoidance ($B = -.39$, $p = .10$).

Exploratory Moderation Analyses

Given attachment anxiety's association with preoccupation of abandonment, I wanted to test whether relationship satisfaction might moderate the effect of attachment anxiety on the proportion earned and redistributed to one's close friend in each scenario. In order to test this question, the Rusbult relationship satisfaction subscale was added to the above models as a continuous variable. A two-way interaction with anxiety, and a three-way interaction were also added. Across both tradeoffs, for earned and redistributed, there was no significant main effect of relationship satisfaction, or an interaction with relationship satisfaction (see Table 7 for full analysis results).

DISCUSSION

The current study examined the effects of self-reported attachment anxiety and avoidance in two separate tradeoff scenarios: investing monetary resources between one's self and one's close friend, and investing monetary resources between one's new friend

and a close friend. The study showed no effects of attachment anxiety or avoidance on investing money between one's self and one's close friend, either in amount earned, distributed, or which word search participants were more likely to start on first. Similarly, there was no effect of avoidance when investing money between one's close friend and one's new friend. The results for anxiety predicting investment in one's close friend compared to one's new friend are more mixed. Although anxiety had no effect on prioritization of earning more money for either friend, there was a marginal effect of anxiety on both likelihood of redistributing money in favor of one's close friend, and starting on the close friend's word search first.

Despite the large amount of literature suggesting that attachment avoidance leads people to invest less in their attachment relationships (see Fraley, 2000 and Shaver & Mikulincer, 2002 for reviews), the current study did not find any effects of attachment avoidance in either tradeoff. There are several possible reasons why avoidance may not have had an effect on the tradeoff decisions in this study. One is that the majority of literature, on which this study's hypotheses were based, has conceptualized investment as the emotional effort of or time spent in engaging with an attachment figure (e.g. Mikulincer, et al., 2009). In contrast, the current study used gift cards with a monetary value instead of a direct measure of emotional engagement or effort. Although the implications of attachment style for potential differences in preference for different resource investment types in relationships have never been examined, the social support literature suggests that "resource" may mean something different based on attachment style. For example, attachment avoidance is often associated with increased preference

for and positive responding to instrumental support (Simpson, Winterheld, Rholes & Orina, 2007; Mikulincer & Florian, 1997). An increased preference for more practical and tangible support could mean that attachment avoidance may lead adults to invest in close relationships in ways that do not require devoting emotional resources toward intimacy. More broadly, evidence from caregiving and social support literature suggests that investment resource type may be subject to differences in attachment style (Kim & Carver, 2007; Florian, Mikulincer, & Bucholtz, 1995). In these studies, attachment style predicts variation in both the provision of and preference for different types of relationship investment. These studies highlight that relationships can provide a range of resources, from tangible offerings, to cognitive-based problem-solving, or emotional validation. However, the existing literature has yet to comprehensively examine whether attachment style moderates willingness to provide alternative kinds of relationship investment other than the traditionally-studied emotional engagement.

An alternative reason why attachment avoidance did not show the predicted effects, particularly in the new vs. close friend tradeoff, could be the present study's use of close friends as the target attachment figures. The majority of literature examining attachment style and relationship alternatives comes from studies on romantic relationships. Friendships, however, follow different rules than romantic relationships. This difference in rules may have important implications for how attachment style affects tradeoffs regarding alternatives. While an adult may have multiple friends to help meet relationship needs, an adult in the US is traditionally limited to a single romantic partner at a time to meet a broad array of relationship needs. Friendships may be less subject to

tradeoffs overall because it is acceptable, if not expected, to have multiple friendships. The issue of forcing a choice between two friends may not be as relevant for adults.

Attachment anxiety had no effect on the tradeoff between one's self and one's close friend in this study. It was originally hypothesized that attachment anxiety might increase prioritizing a close friend over one's self because attachment anxiety is associated with increased reliance on attachment figures for support (Shaver & Mikulincer, 2002; Mikulincer & Shaver, 2007). However, studies documenting this effect have usually operationalized "support" as increased emotional support to reduce negative emotions during stressful or upsetting situation. In the emotions literature, the absence of negative emotions does not mean that one is feeling a positive emotion (Shiota, Neufeld, Danvers, Osborne, Sng, & Yee, 2014). Similarly, a partner who helps assuage negative feelings or resolve problems may not elicit the same relationship-investing motivation as a partner who helps celebrate successes, or engage with opportunities. Adults derive unique benefits from the process of sharing and celebrating positive events with their relationship partners (Gable & Reis, 2010). However, not all relationships provide an equal opportunity for this process. Researchers have demonstrated that different relationship partners in any single adult's life may up-regulate or down-regulate discrete emotions with varying levels of effectiveness (Cheung, Gardner, & Anderson, 2015). Given that attachment anxiety is associated with increased negative perceptions of conflict in relationships (Campbell, et al., 2005), those high in attachment anxiety may be less likely to engage in celebrating positive experiences with their attachment figures. As

a result, high attachment anxiety may not relate to seeing the need to invest in a close relationship when one still has the option of investing in one's self.

The current study did provide preliminary evidence that attachment anxiety may play a role in managing the tradeoff of investing in a close compared to new friend. While these results are marginally significant and need to be replicated, it is worth considering that attachment anxiety may correspond with a preference for investing in known friendships over potential new friendships. Negative schemas of the self as unlovable may lead those high in anxiety to believe that they are, in general, unworthy of investment from others. In the context of investing in a new friend, this belief may correlate to thinking that new others are unlikely to want to invest in them long-term. Thus, high-anxiety adults may prioritize investing in friends who have demonstrated prior commitment rather than risking investing in a new friend with high likelihood of leaving. Future studies should investigate whether this effect remains in other contexts, and, if so, which direction may drive this effect.

The relationship investment resource type was itself a limiting factor in this study. The researcher chose monetary investment as a way to try to standardize investment across relationships and different participants. However, differences in performance on the word search task created a range in total amount earned (and redistributed) that varied from $2 to $11.25. This variability in range may have created meaningfully different amounts of money during redistribution, despite the intent to standardize. For example, a participant earning $2 had something very different in terms of meaningful resources to distribute than a participant who earned more than five times that amount.

Additionally, the average amount itself may not have been a valid way to capture investment in a close relationship. Small gifts or monetary exchanges like buying a friend coffee may help lay the foundation for a close relationship. As relationships progress, these kinds of exchanges become replaced with need-based exchanges (Clark, Mills, & Powell, 1986). Studies show that gift giving transitions from exchanging gifts of equal value, to gifts that signal responsiveness or value specific to the receiver (Algoe, Haidt, & Gable, 2008; Belk & Coon, 1993). The reward from the word search was intended to reflect effort, rather than money directly. However, in the redistribution phase, participants were given the amount earned for each recipient in dollars. This process may have highlighted the specific monetary value of the gift card, rather than the effort put towards earning the reward. If monetary value was highlighted over effort for participants, the average amount of money earned may not have registered to most participants as a form of investment for a close friend. Money, particularly small amounts of money, may not communicate investment in a close relationship. Instead, working to earn a gift or coupon for a recipient rather than a direct monetary reward may have better captured investment in a close relationship for participants.

Directly following this study, a replication should test whether there is an effect of attachment anxiety when allocating resources between a close and new friend. The methods should operationalize investment type as money for a direct replication, as well as identifying the role that specific negative self-schemas may play in shaping investment decisions. Additionally, future studies should test whether attachment style moderates which types of relationship resources adults are willing to invest in different relationship

partners. For example, depending on attachment style, some adults may be more willing to invest resources that require intimacy, whereas others may invest through more tangible or instrumental resources.

Broader Directions

Although the present study did not support the original hypotheses, this study originated from an effort to reframe attachment in adults. These findings still speak to ways to advance this broader program of research. A pilot study preceding the current study presented adults with imagined scenarios. These scenarios forced participants to prioritize investing cognitive and emotional resources in two parallel tradeoff versions. In two samples, higher avoidance predicted increased investment of time in one's self compared to a romantic partner. Higher avoidance also predicted increased investment in one's new friend compared to a romantic partner.

Failure to find similar effects of attachment avoidance in the present study suggests a broader set of questions. Do friendships follow the same investment rules as romantic relationships? Friendships and romantic relationships both serve important functions in an adult's life. However, the life stage, social expectations, as well as the specific function each relationship type serves may mean that relationship type moderates the way adults invest in these relationships. In young adulthood, friendships are a critical part of status-seeking behavior. Friends during this life stage may provide important information and advice on how to advance one's own status. As adults mature, an adult's goals shift to prioritize creating and caring for offspring. Romantic partners become critical in supporting these new goals by providing both tangible and emotional support

resources. During this time, adults may decrease investing in relationships that primarily support status seeking in order to increase investment in a relationship that supports the more relevant goal of caring for offspring. Future studies should approach different relationships in regards to the unique function of each relationship type. Additionally, it is important to consider how that function may change in relevance across the lifespan.

Similarly, the ideas for this study were derived from an effort to reframe how researchers study and interpret insecure attachment in adults. Despite initial conception of attachment anxiety and avoidance in infants as functional responses to a particular environment (Bowlby 1969/82, Ainsworth, et al., 1978), translating this research to adult behavior has lost some of this functional view. Instead, much of the narrative around anxiety and avoidance resembles more of a disease vulnerability model, rather than a functional model. As a result, studies using attachment style focus on measuring attachment insecurities' association with relationship outcomes traditionally perceived as negative. While it is important to understand which individuals may be at risk for developing unfulfilling relationships, approaching these attachment styles as deficits rather than functional responses obscures researchers' ability to understand ways in which these responses may promote unique relationship benefits.

Viewing attachment style from a more functional perspective allows researchers to focus on each attachment style as a strategy for dealing with limited resources in a particular context. In almost all contexts, it would be difficult for an adult to sustain equally close and deep relationships with many people while still investing in one's self. In environments where people are unreliable, it may be more useful for adults to spread

their relationship investments across a large number of people. If so, some adults may be better at forming new relationships than others. These adults should be more likely to see new people as a relationship opportunity rather than a stranger to be wary of. In environments where people are able and willing to be committed to one another, having only a few relationships may prove more useful instead. In these cases, adults should be more willing to overlook transgressions from their relationship partners, and should demonstrate more loyalty and altruism towards their partners.

Viewing attachment style as a strategy rather than a deficit can broaden the scope of positive relationship outcomes for researchers to investigate. Both the willingness to form new relationships, and the desire to invest in existing relationships are equally useful relationship behaviors. Both relationship behaviors may help fulfill an adult's relationship needs. It is the context in which these behaviors occur that determines whether or not such behavior will benefit the individual. In both of these situations, viewing attachment style as a strategy rather than a vulnerability allows researchers to identify both the context that contributes to reoccurring patterns of behavior, as well as the related benefits for each strategy. Future studies should consider that depending on the relevant context, there are likely to be multiple ways of approaching how to invest limited resources in pursuing relationships and the important opportunities they bring with them.

Conclusion

This study tested whether attachment style affected decisions to invest monetarily in two relationship tradeoffs: either investing in one's self compared to a close friend, or

investing in a close friend compared to a new friend. The hypotheses describing how attachment style should affect these investment decisions were largely unsupported. Although the study was limited by the operationalization of relationship investment in terms of monetary resources, the absence of effects by attachment style opens up new sets of questions previously overlooked by attachment researchers. The larger theoretical approach, conceptualizing relationship behaviors as investments, and trading attachment insecurity from a disease model to a context model, still remain promising for future studies.

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Table 1: Descriptive Statistics for All Study Variables

	Self vs Close				Close vs New					
	Range	*M (SD)*	Skew	Kur-tosis	Range	*M (SD)*	Skew	Kur-tosis	T-test	df
ECR-S Anx	1-6.33	3.46 (1.11)	.20	-.43	1-6.17	3.34 (1.03)	.11	-.21	.94	306
ECR-S Avo	1-5.83	2.69 (1.08)	.91	.43	1-5.33	2.78 (0.90)	.53	.11	-.77	306
AAQ Anx	1-6.11	3.18 (1.15)	.27	-.74	1.11-5.67	3.30 (1.00)	.14	-.53	-.14	306
AAQ Avo	1-6.25	3.37 (1.13)	.24	-.57	1.38-6.38	3.59 (1.06)	.15	-.37	-1.74^{+}	306
Avg Anx	1.17-6.06	3.32 (1.07)	.26	-.57	1.36-5.58	3.27 (0.95)	.21	-.38	.43	306
Avg Avo	1-5.79	3.03 (1.00)	.47	-.30	1.5-5.52	3.18 (0.88)	.36	-.29	-1.41	306
Age	18-28	19.00 (1.33)	3.46	18.30	18-30	19.32 (1.88)	3.16	12.48	-1.77^{+}	304
Self Earned ($)	0-6.25	2.85 (1.59)	.03	-.27	-	-	-	-	-	-
Close Earned ($)	0-6.25	2.62 (1.54)	.28	-.46	0-6.25	3.10 (1.40)	-.06	.00	-2.84**	300
New Earned ($)	-	-	-	-	0-5.75	2.21 (1.41)	.16	-.47	-	-
Self Redis ($)	0-8.5	2.67 (2.00)	.30	-.19	-	-	-	-	-	-
Close Redis ($)	0-8.75	2.79 (2.03)	.48	.44	0-8.75	3.41 (1.85)	.31	.03	-2.74**	300
New Redis ($)	-	-	-	-	0-6	1.90 (1.66)	.50	-.43	-	-
Close Earned Proportion	0-1	.48 (.26)	.25	.10	0-1	.59 (.24)	-.23	.39	-3.90**	300
Close Redis Proportion	0-1	.51 (.34)	.06	-.94	0-1	.64 (.29)	-.38	-.32	-3.60**	299
Close WHOTO	1.5-7	5.36 (1.20)	-.93	.44	2.17-7	5.46 (1.11)	-.83	.32	-.80	306
New WH-OTO	-	-	-	-	1-6.67	3.47 (1.26)	.05	.45	-	-
R. Relationship Satisfaction	1.4-9	7.55 (1.38)	-1.55	3.06	3-9	7.53 (1.35)	-1.14	.95	.13	306
R. Commit	1.6-9	6.26 (1.43)	-.26	-.03	2.20-9	5.75 (1.38)	-.09	-.32	.02	306
R. Alternatives	1.17-9	7.20 (1.21)	-1.89	5.85	3.17-9	7.20 (1.04)	-1.04	1.84	3.11**	306
R. Investment	1.2-9	5.84 (1.80)	-.48	-.33	1.2-9	6.07 (1.66)	-.34	-.38	-1.15	306
Close IOS	2-7	5.79 (1.60)	-.75	-.07	3-7	6.16 (0.97)	-1.29	1.46	2.99	303
New IOS	-	-	-	-	1-7	3.97 (1.29)	.09	-.32	-	-

Note. "Anx" indicates anxiety, "Avo" indicates avoidance, "Avg" refers to averaged attachment style between ECR-S and AAQ, "Redis" indicates the amount redistributed at the end of the study, "Prop" refers to proportion of close divided by total, "R." indicates Rusbult subscale. * denotes $p < .05$, ** demotes $p < .01$

Table 2: Frequencies for Binomially Distributed Variables

	Self vs Close (n=130)			New vs Close (n=178)		
	Self	Close	Equal Split	New	Close	Equal Split
Earned	66	50	14	109	44	25
Dichotomized Redis	52	55	23	29	109	40
Dichotomized Word Search Started on	63	59	-	108	61	-

Table 3: Pearson Correlation Table of Normally Distributed Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14.	15.	16.	17.	18.
1. E Anx	–	.18*	.75**	.15	.94**	.18*	-.19*	-	-.06	-.08	-.12	.02	-	.05	.18	-.12	.12	.04
2. E Avo	.31**	–	.31**	.63**	.26**	.89**	.08	-	-.03	-.03	-.05	.01	-	.02	-.07	.05	.05	-.31
3. A Anx	.81**	.47**	–	.29**	.93**	.33**	-.08	-	-.13	-.04	-.14	-.04	-	-.03	-.10	-.14	.05	-.01
4. A Avo	.21**	.63**	.38**	–	.23**	.92**	.15*	-	.01	-.05	-.04	.02	-	.04	-.08	-.04	.05	-.18
5. C Anx	.95**	.41**	.95**	.31**	-	.27**	-.15	-	-.10	-.06	-.14	-.01	-	.01	-.15	-.14	.09	.02
6. C Avo	.28**	.90**	.47**	.91**	.40**	-	.09	-	-.01	-.05	-.05	.02	-	.03	-.08	-.05	.05	-.27
7. Age	-.03	.18*	.07	.10	.02	.15	-	-	.08	-.08	.00	.10	-	.02	-.02	.00	.04	-.15
8. Self E	.09	.15°	.10	.26**	.10	.23**	-.10	-	-	-	-	-	-	–	-	–	-	-
9. Clo E	.02	-.04	.04	-.03	.03	-.04	.03	-.04	-	-.33**	.58**	.71**	-	.75**	-.27**	.58**	.54**	.19*
10. New E	-	-	-	-	-	–	-	–	-	-	.58**	-.85**	-	-.11	.69**	.58**	-.55**	-.04
11. Total E	.12	.13	.14	.24**	.14	.20*	-.08	.20*	.46**	-	-	-.12	-	.55**	.37**	1.00**	-.02	.13
12. E Prop	-.04	-.06	-.03	-.13	-.04	-.11	.08	-.11	.86**	-	.00	-	-	.43**	-.60**	-.12	.69**	.11
13. Self R	.03	.00	.06	.17	.04	.15	-.06	.15	-.31**	-	.36**	-.52**	–	-	-	-	-	-
14. Clo R	.07	.02	.06	.00	.07	.00	.00	-.00	-.66**	-	.39**	.52**	.72**	-	-.58**	.55**	.79**	.17
15. New R	-	-	-	-	-	-	–	-	–	-	-	-	-	-	-	.37**	-.90**	-.07
16. Total R	.12	.13	.15	.24**	.14	.20*	-.07	.20*	.47**	-	.99**	.01	.36**	.40**	-	-	-.02	.13
17. Prop R	.01	-.05	-.05	-.08	.00	-.07	.07	-.07	.52**	-	.01	.60**	- .90**	.88**	-	-.01	-	.13
18. Clo WHO	-.13	- .33**	-.19*	-.04	-.17	-.15	.01	.03	.12	-	.08	.06	-.13	.19*	-	.08	.13	-

Note bottom triangle is for self vs close friend tradeoff, top triangle is for close vs new friend tradeoff. For variables 1-6, "E" indicates ECR-S, "A indicates AAQ, C indicates combined average of ECR-S and AAQ. For variables 8-17, "E" refers to Earned, and "R" refers to redistributed. ** denotes significant at $p < .01$; * denotes significant at $p < .05$

Table 4: Spearman Correlation Table of Non-normally-distributed Study Variables

	Anx	Avo	Sex	Age	Earned	Redis	Word Search
Anxiety	-	.32**	.20**	-.17*	.01	.13	-.07
Avoidance	.43**	-	.00	-.01	-.05	.06	.02
Sex	.10	.09	-	-.16	-.03	-.09	.18*
Age	.05	.09	-.12	-	.09	.12	-.05
Dichotomized Earned	-.05	-.07	-.02	.07	-	.75**	-.36**
Dichotomized Redis	.04	-.09	.04	-.04	.78**	-	-.38**
Word Search	.08	-.01	.06	-.07	.40**	.37**	-

Note. Attachment score based on the average of the relevant ECR-S and AAQ subscales.

Table 5: Logistic Regression Results for Earned and Redistributed

	Test	**Nagelkerke R^2**	***B***	***SE***	***p***
Self vs Close Earned	$\chi2(6) = 2.41$, p = .88	.03			
Sex			.02	.40	.95
Age			.22	.18	.22
Total Earned			.03	.13	.84
Anx			-.09	.20	.67
Avo			-.12	.21	.58
Anx x Avo			.07	.20	.72
Self vs Close Redis	$\chi2(6) = 2.04$, p = .92	.03			
Sex			.23	.42	.58
Age			.04	.16	.81
Total Redis			-.07	.14	.62
Anx			.18	.21	.38
Avo			-.22	.22	.31
Anx x Avo			.08	.21	.69
New vs Close Earned	$\chi2(6) = 4.03$, p = .67	.04			
Sex			-.11	.40	.78
Age			.18	.13	.14
Total Earned			-.01	.12	.95
Anx			.15	.22	.50
Avo			-.24	.24	.31
Anx x Avo			-.16	.25	.52
New vs Close Redis	$\chi2(6) = 8.23$, p = .22	.09			
Sex			-.55	.47	.24
Age			.22	.17	.19
Total Redis			.08	.14	.56
Anx			.48	.27	.07
Avo			-.14	.29	.63
Anx x Avo			-.36	.30	.23

Note. Attachment score based on the average of the relevant ECR-S and AAQ subscales.

Table 6: Logistic Regression Results for Which Word Search First Started on

	Test	**Nagelkerke R^2**	***B***	***SE***	***p***
Self vs Close WS	$\chi 2(5) = 4.18$, $p = .52$	.05			
Sex			.18	.39	.64
Age			-.06	.14	.70
Anx			.26	.20	.19
Avo			-.12	.21	.58
Anx x Avo			.33	.21	.12
Self vs Close Redis	$\chi 2(5) = 10.62$, $p = .06$	.09			
Sex			.44	.35	.35
Age			-.05	.10	.63
Anx			.19	.20	.09
Avo			.39	.21	.36
Anx x Avo			-.23	.23	.10

Note. Attachment score based on the average of the relevant ECR-S and AAQ subscale.

Table 7: Logistic Regression Results for Moderation Analyses

	Test	Nagelkerke R^2	*B*	*SE*	*p*
Self vs Close Earned	$\chi2(9) = 5.56$, p = .78	.06			
Sex			-.05	.44	.92
Age			.24	.19	.21
Total Earned			-.01	.14	.96
Rel Satis			.28	.20	.17
Anx			-.01	.21	.95
Avo			-.11	.23	.61
Rel Satis			-.17	.15	.27
Anx x Avo			.99	1.34	.46
Anx x Avo X Rel Sat			-.12	.17	.48
Self vs Close Redis	$\chi2(9) = 6.99$, p = .64	.08			
Sex			.26	.46	.57
Age			.09	.17	.62
Total Earned			-.11	.14	.45
Rel Satis			.20	.20	.32
Anx			.25	.23	.27
Avo			-.18	.23	.43
Rel Satis			-.35	.20	.08
Anx x Avo			.06	.22	.79
Anx x Avo X Rel Sat			.00	.19	.98
New vs Close Earned	$\chi2(9) = 8.51$, p = .48	.08			
Sex			-.11	.41	.80
Age			.20	.13	.13
Total Earned			-.03	.12	.79
Rel Satis			.27	.25	.16
Anx			.08	.23	.74
Avo			-.11	.25	.67
Rel Satis			.08	.17	.61
Anx x Avo			-.22	.27	.41
Anx x Avo X Rel Sat			-.26	.19	.17
New vs Close Redis	$\chi2(9) = 11.45$, p = .25	.13			
Sex			-.55	.48	.26
Age			.25	.18	.17
Total Earned			.06	.15	.71
Rel Satis			.26	.17	.13
Anx			.46	.29	.12
Avo			-.01	.31	.97
Rel Satis			.16	.18	.37
Anx x Avo			-.39	.33	.24
Anx x Avo X Rel Sat			-.22	.20	.28

Figure 1: Histogram of Proportion Earned in Self vs. Close Friend Tradeoff

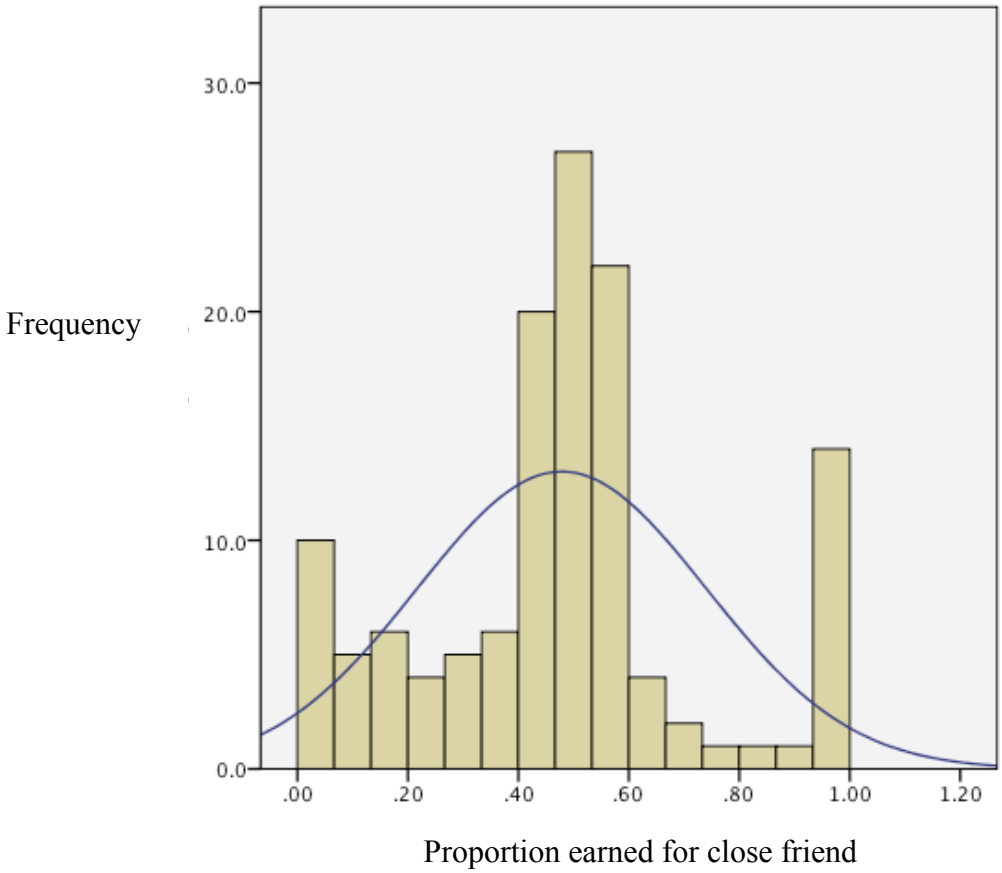

Figure 2**:** Histogram of Proportion Redistributed in Self vs. Close Friend Tradeoff

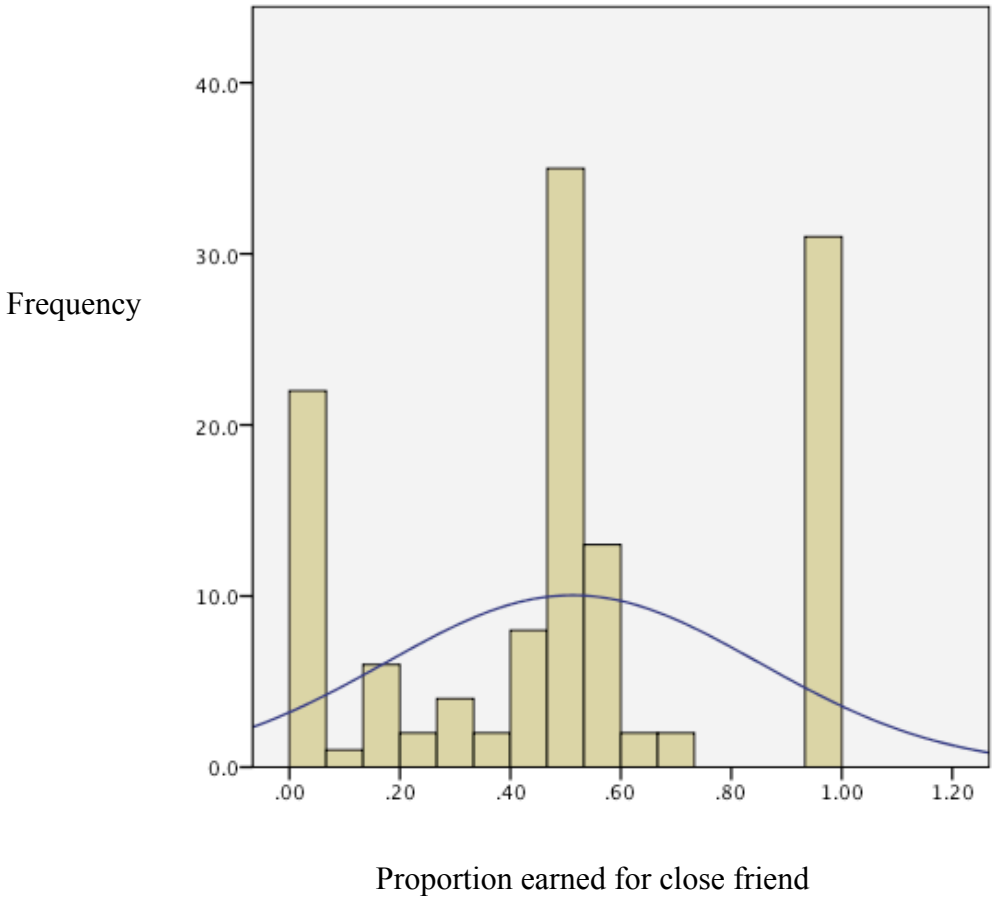

Figure 3: Histogram of Proportion Earned in New vs. Close Friend Tradeoff

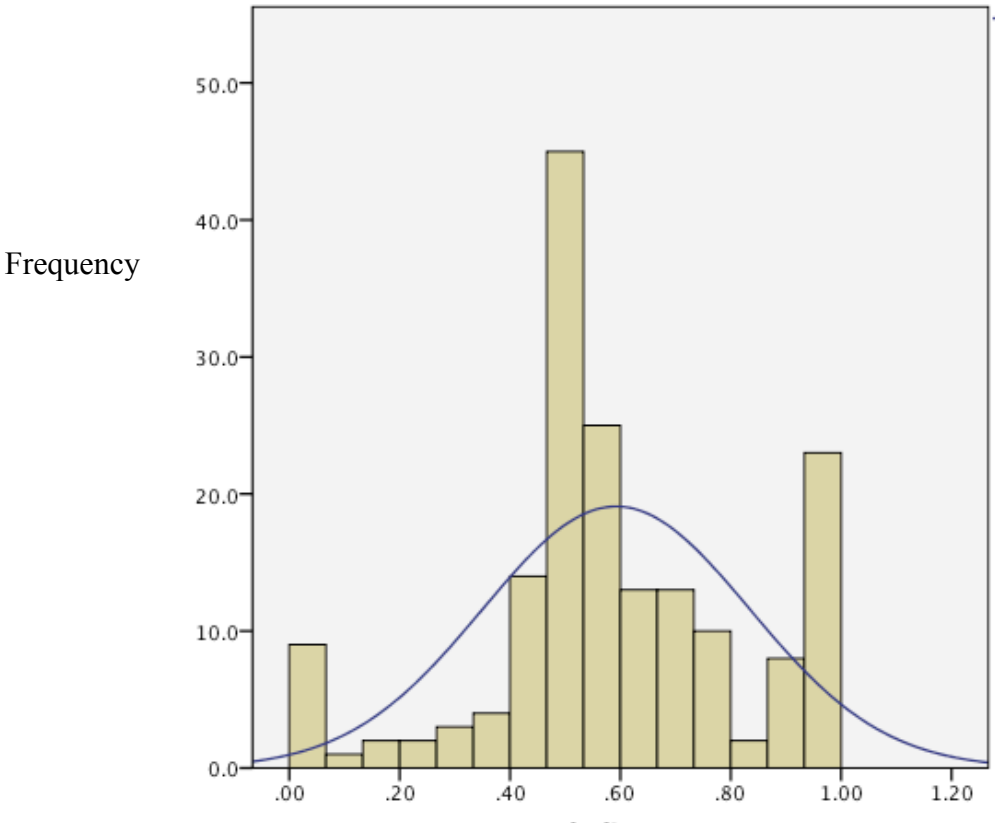

Figure 4: Histogram of Proportion Redistributed in New Vs. Close Friend Tradeoff