Love Thy Attachment Figures as Thyself:

Self-esteem Predicts Deviations in Adult Attachment Security

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ABSTRACT

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As we expand our close relationship (attachment) bonds from parents and caregivers to friends and romantic partners, some of us become more secure while others become more insecure. What determines the direction in which our security deviates? The present study looks at whether self-esteem and worldview systems can account for deviations in security across partners, in both a college sample and a (more generalizable) online sample. Participants who were more secure in their friendships and romantic relationships than in their relationship with their parents/caregivers had higher self-esteem. The impact of worldviews, measured by the extent to which participants used several common belief systems to organize and give meaning to the world, was mixed, such that no one construct was able to account for differences in every relationship, but each contributed to the model in one way or another—perhaps reflective of the heterogeneous nature of worldviews themselves. The results of this study support a theoretical model depicting self-esteem and attachment as overlapping put partly independent sources of psychological support, and point to a need for a general measure of the strength of one's worldviews that is not tied to specific beliefs.

Keywords: adult attachment, psychological defense, worldviews, self-esteem

Love Thy Attachment Figures as Thyself:

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The attachment system consists of emotions, cognitions, and behaviors that bond people to supportive others. Although it originally evolved to ensure infant survival (Bowlby, 1969), it continues to direct our relationships with close others in adulthood. During childhood and adolescence, friends and then romantic partners adopt the roles that caregivers once held exclusively (Fraley & Davis, 1997). Although the distress-alleviating and exploration-encouraging functions of attachment are relatively consistent regardless of partner, attachment style—one's personality-based attachment tendencies—is malleable. As we age and shift our focus to peer attachment relationships, some of us flourish and become markedly more secure, whereas others flounder and become less secure (e.g., Dinero, Conger, Shaver, Widaman, & Larsen-Rife, 2008; Fraley, Roisman, Booth-LaForce, Owen, & Holland, 2013; Zayas, Mischel, Shoda, & Aber, 2011). We know now that attachment style is not as continuous as originally theorized, but we do not know what pushes people in one direction or the other.

In this study, I look to the tripartite security system for an explanation (Hart, Shaver, & Goldenberg, 2005; Hart, 2014; Hart, 2015). This theory's central tenet is that attachment is inextricably tied with self-esteem and worldview systems (cf. terror management theory; Pyszczynski, Greenberg, & Solomon, 1997), such that the three encompass an individual's routes for psychological defense. A person can have a strong security system (i.e., secure attachment, high self-esteem, and clearly defined, soothing worldviews), a weak one (i.e., insecure attachment, low self-esteem, and loosely defined, negative, or tenuous worldviews), or anywhere between.

Deficits in one area of the system may be compensated by strengths in another. This study attempts to measure the strength of each component, including attachment towards caregivers, friends, and romantic partners, to see whether changes in attachment security with different partners are able to be explained by the relative strength or weakness of the security system as a whole.

Attachment

Why is it important to be 'attached' to another? More than just bringing about warm, fuzzy feelings, attachment ensures that infants receive the care they need to survive. Like many other animals, humans are born relatively helpless; infants' senses and capabilities are underdeveloped and they rely on protection from others to survive. At first, human parents take total care of infants, but as they develop and begin to move about the world autonomously, it is imperative that infants maintain proximity to a caregiver; even if they can crawl or walk, they cannot be fully independent for quite some time. Attachment thus evolved to keep mammals alive while they mature (Bowlby, 1969).

The product of an innate behavioral system, attachment regulates children's proximity to their caregivers to suit the situation. During distress, the system activates and encourages the child to get closer to his or her caregiver(s) in whatever way possible. Depending on the situation and the child's abilities, this goal can be achieved by passively crying and awaiting a soothing response or actively approaching the caregiver (Bowlby, 1969). As they develop, children learn to balance the need for closeness with their need to explore and grow. With maturation, attachment "figures" (i.e., caregivers) serve progressively less involved functions; first they are the object of constant proximity seeking, then a safe haven only during times of distress, and eventually a secure base from which children can launch themselves during exploration. When

the caregiver is not reachable to fulfill any of these functions, the child responds with anxiety, but during times of calm the attachment system turns "off" (Bowlby).

For most children, attachment system activation and deactivation is well-balanced and reflects what psychologists call attachment *security*. However, some children develop an alternative dispositional *attachment style*. Children who become especially upset at forced separation and are difficult to sooth are considered *anxious*, while those who seem to suppress their distress and reject their caregiver upon reunion are called *avoidant.*[1] (By contrast, secure children become upset at separation but are easily calmed by reunion; Ainsworth, Bell, & Stayton, 1972; Simpson, Rholes, & Nelligan, 1992.)

According to attachment theory (Bowlby, 1969), attachment style differences reflect learned expectations for care. If a child's caregiver is often unresponsive to his or her needs, the child will learn to amplify its cries in order to receive help. If the caregiver punishes the child in response to the pleas, the child learns that being needy will not earn any favors; the child adjusts and hides its distress in order to avoid the pain of rejection. Respectively, these models of thinking represent attachment anxiety and avoidance at their extremes.

Adult Attachment

As people mature, they grow less dependent on their primary caregivers but never outgrow their attachment system. Rather, the system adjusts its focus to other close relationship figures, such as friends and romantic partners. Even the most doting mother cannot sooth every problem, and so it is necessary to have peer relationships to turn to in times of distress. Attachment theorists believe that the expectations and behavioral patterns that people learn as children in the infant-caregiver relationship lay the groundwork for their future emotional bonds, as described above (Mikulincer & Shaver, 2003).

With each subsequent attachment figure, the wealth of experiences available to draw upon grows, allowing them to shape their behavior and expectations accordingly. Thus, adults' attachment styles are malleable—molded by experiences with many relationship partners, both distant (e.g, childhood caregiver(s) and friends) and recent (e.g., current romantic partner). Because their mental models are informed by different interactions, adults may have different attachment styles towards specific partners.

Caregivers, friends, and romantic partners all serve similar attachment functions by enabling growth and exploration during good times and proving comfort during distress (Fraley & Davis, 1997; Pietromonaco & Beck, 2015), but a person's style towards each may differ due to the unique experiences shaping each mental model. Correlations between one's attachment style with respect to various relationship partners have been found to be as low as $r = .08$ or as high as $r = .73$ (Klohnen, Weller, Luo, & Choe, 2005), meaning that attachment style in a given relationship context does not necessarily carry over to another. For example, people who are avoidant towards their parents but are able to develop secure friendships may be more comfortable becoming emotionally intimate with their friends while remaining aloof with their parents.

Because psychologists tend to study behavior outside of the confines of a single relationship, measuring a person's attachment style towards a specific partner is often insufficient. The goal is generally not to understand the mental model guiding a person's interactions with just one partner, but rather to understand general patterns of relating to close others. To accommodate such needs and allow researchers to get a broader view of a person, they can measure general attachment style in addition to partner-specific styles. By aggregating across all of a person's attachment relationships, any anomalies in one relationship are smoothed out. If,

however, a researcher's goal is to dissect the dynamics of one relationship or to compare and contrast between several relationships, then measuring specific attachment styles would be appropriate. In adults, attachment to romantic partners is most highly correlated with general attachment (Klohnen et al., 2005), reflecting the relative importance such relationships take on with maturity.

Even general attachment style, however, is not as consistent throughout the lifespan as might be expected. Retrospectively, secure adults remember their parents being attentive and warm while insecure adults remember their parents being less responsive to their needs (e.g., Hazan & Shaver, 1987), but such differences could be due to errors in memory recall (Scharfe & Bartholomew, 1998). Prospective studies have found only moderate to nonsignificant correlations between observed quality of the parent-child relationship and later measures of adult security, meaning that attachment style across the lifespan is not as stable as originally theorized (e.g., Dinero et al., 2008; Fraley et al., 2013; Zayas et al., 2011).

If changing across lifespan and between partners weren't enough, attachment even changes throughout the course of a given relationship in predictable ways. During a blossoming romance, for example, even normally secure people can be caught clinging to one another. Heightened attachment anxiety is normal for those involved in new relationships because it helps focus attention on their new partners (Eastwick & Finkel, 2008); the difference lies in how people behave once the relationship is established. Although they do bring preconceived notions with them based on their relationships with previous partners, the degree to which they do so is not fixed. The more a new partner resembles a past one, in romantic contexts, the more people rely on their already formed mental model (Brumbaugh & Fraley, 2006), but their degree of similarity only accounts for a portion of variance. This finding sheds some light on patterns of

change in attachment style, suggesting that in addition to partner characteristics, qualities of the

participants themselves make a difference. Why do some people become markedly more or less

secure as they develop or move from one relationship to another? This question has yet to be

answered, but research in the field of psychological defense (e.g., Hart, 2014) suggests a

solution.

Security

When we are secure and able to turn to close others for comfort, we can cope with

stressors that might be too much for us to overcome by ourselves. Even if the problem is too big

for them to solve, their reassurance often makes the issue seem more manageable. In this way,

having an attachment system in place defends us against the negative feelings we would

otherwise experience. If the person from whom we seek comfort is rejecting or unresponsive to

our needs (i.e., behavior which produces avoidance or anxiety in the seeker), those negative

feelings remain (Bowlby, 1969). Thus, the effectiveness of attachment as a defense is

conceptually related to the individual's trait levels of security, as well as to the physical

accessibility of the attachment figure in a given situation.

So that we do not fall apart when relational sources of support are not available, we have

additional forms of defense from which to draw fortitude. Just as being securely attached can

minimize the negative feelings experienced in relationships, other defenses can protect against

unpleasant feelings in related domains. In the tripartite "security system" model of psychological

defense, based on integrating attachment and terror management theories (Hart et al., 2005; Hart,

2014; Hart, 2015), attachment is one of three processes proposed to provide an integrated sense

of security; self-esteem and cultural worldviews are the other two.

Attachment is the first defense to develop; as described above, babies form attachments to their caregivers as a necessary source of physical protection. Older children develop a need to protect themselves not only against physical harm, but also against the anxiety that comes with increasing awareness of their own mortality. According to terror management theorists (e.g., Pyszczynski et al., 1997), they grow to rely on feelings of value (i.e., self-esteem) and of an ordered and meaningful world (outlined by cultural worldview systems) to protect themselves, and these mechanisms are born directly from attachment (Hart et al., 2005).

This process is thought to develop according to a normative trajectory. An infant does not know what death is, let alone to fear it, but by turning to caregivers instinctually, they protect themselves from it and begin to sculpt attachment relationship dynamics. The caregivers reinforce their seeking behavior by attending to their needs. But there comes a time when caregivers no longer behave with unconditional warmth. Rather, they begin to mold children's sense of right and wrong with positive and negative responses to behavior. When children are good, they receive love and adoration; when they are bad, they are scolded instead. From such interactions, children figure out that being good earns them love and so they strive to behave in order to receive affection from their attachment figure(s). As the connection between the two strengthens, they begin to strive for greatness on their own accord and develop a feeling of self-esteem. Now when they are distressed, they have an additional defense available: they can turn to their caregivers or they can turn to their self-esteem and remind themselves that they are good and they are loved.

That is sufficient for a while, but as their fears become more existential, even self-esteem cannot fully subdue them. To combat their children's fears, caregivers instill in them beliefs about the way the world operates (e.g., bad things only happen to bad people, everything

happens for a reason). They cannot hide the truth that everyone dies, no matter how much love

and self-esteem they have, but they can provide their children with comforting ideologies. Many

of these beliefs are structured around the idea that living up to standards set by religion or other

authorities will ensure a symbolic or literal afterlife. In Christianity, for example, a man who

adheres to the bible and repents for his wrongdoings is able to go to heaven; although his body

withers, his soul lives on and so cheats death. Followers of Buddhism who believe in

reincarnation are able to achieve immortality in a more literal sense by being reborn time and

time again, but again, the quality of their afterlife is contingent upon their devotion to the

teachings of Buddha.

Outside of religion, literal immortality is harder to come by. Instead, other systems offer

the opportunity to live on in various symbolic ways. Professional athletes, celebrities, civil rights

leaders, and other public figures are commemorated to the extent that they cannot be forgotten. A

scientist who cures cancer lives on through the lives that she saves. A receptionist who brightens

clients' days leaves his mark on them in his own way. By not only living up to the standards set

by one's religion, but also by excelling in the pursuit of any goal, symbolic immortality is able to

be achieved; and so, the goal of self-esteem becomes intertwined with living up to cultural

worldviews (Hart et al., 2005).

Attachment, self-esteem, and worldviews: the three processes are inextricably linked;

love from one's caregivers (i.e., attachment) forms the basis for positive feelings about oneself

(i.e., self-esteem), which is later validated by living up to cultural standards (i.e., cultural

worldviews). During distress, people now have not one but three options to make themselves feel

better. If self-esteem is under siege, they can turn to an attachment figure for comfort or remind

themselves of their belief systems to explain away the hurt. If worldviews are threatened, they

can remind themselves instead of their personal value. Although terror management focuses only on self-esteem and worldviews, the tripartite security system acknowledges attachment as the basis of the two constructs and suggests that deficits in one domain may be overcome by strengths in another (Hart et al., 2005).

In several studies, threats to one branch resulted in compensatory reliance on the others. For example, participants who were primed with attachment insecurity by imagining a breakup with a close partner were more likely to regard a pro-American essay highly (in contrast to an anti-American essay) and rate themselves as possessing qualities that they considered positive. In both scenarios, attachment security was threatened, and participants turned in one case to their worldviews and in the other to their self-esteem in response, presumably to alleviate the negative emotions they were experiencing (Hart et al., 2005). If threats in one domain can be minimized by turning to another domain in an experimental setting, it follows that trait levels of each should be able to compensate for one another similarly.

Present Studies

The tripartite security system model's tenet that different forms of security may be somewhat interchangeable (a phenomenon known as *fluid compensation*; Allport, 1943) may be the key to understanding deviations in attachment continuity. Perhaps those who become markedly more secure are actually drawing upon the fortitude of a generally strong security system, whereas those who become less secure are reflecting the weakness of their system as a whole in the form of low self-esteem, weak worldview beliefs, and insecure attachment.

If that is the case, then such differences ought to be reflected by quantifiable measurements of each branch of the security system. The present studies seek to understand whether self-esteem and cultural worldviews are able to account for changes in attachment

security throughout the lifespan. By using measures of attachment style towards the earliest

attachment figures (i.e., caregivers) as a baseline from which to compare changes in attachment

styles towards later partners (i.e., friends and romantic partners), a person's deviation from their

own baseline can be calculated and used as a metric of increased or decreased security. Then,

this deviation can be related to measures of self-esteem and cultural worldviews.

If the tripartite security model is correct, then positive deviations should be related to

high self-esteem and strong worldviews and negative deviations should be linked to low self-

esteem and weak worldviews. On this basis, I hypothesize that deviations in attachment security

are able to be accounted for by the strength of the security system as a whole. That is, people

who become progressively more secure in subsequent attachment relationships must be drawing

on other sources of security, and people who become less secure must be deficient in other areas.

If this is the case, participants who are more secure in their adult relationships than would be

expected (given their security towards their caregivers) should have a stronger system and

express positive views of the self and conviction in their beliefs about the world; conversely,

participants who are less secure than would be expected should have a weaker system and have

low self-esteem and weaker worldviews.

Study 1

Early adulthood is a time in which people are rapidly changing their attachment focus. As

they physically distance themselves from their caregivers by moving away from home, they do

so emotionally as well. Friends become a stand in for family and quickly take on some of their

functions. As friendships strengthen, so does transference; the longer a friendship endures, the

more attachment functions it takes on (Fraley & Davis, 1997). For some, romantic partners have

begun to share this role as well. Because they are in the middle of the transition process and their

relationships with college peers are still in the beginning stages, changes in anxiety and

avoidance may be exaggerated. As friendships develop dependable patterns of interaction, those

involved are better able to predict each other's behavior and their mental models are reinforced.

In the early stages of friendship, however, the inflated levels of insecurity may make deviations

easier to identify. Because of this, I chose to look at a sample of college students first. By

measuring their levels of anxiety and avoidance towards caregivers, friends, and romantic

partners, and their levels of self-esteem and endorsement of common worldviews, I can

determine which facets of the security system best account for those students who become more

or less secure with progressive relationships.

   Although self-esteem is a singular, global construct that is usually measured with a single

scale, worldviews encompass many manners of organizing the world. For this study, I chose to

concentrate on some of the most prominent: believing that the world is fair (The General Belief

in a Just World Scale; Dalbert, Montada, & Schmitt, 1987), being able to adjust to new situations

(The Personal Need for Structure Scale; Thompson, Naccarato, & Parker, 1989), being drawn

towards religion from an inner drive (The Intrinsic-Extrinsic Religiosity; Gorsuch & McPherson,

1989), feeling as though one has achieved spiritual enlightenment (The Spiritual Transcendence

Index; Seidlitz et al., 2002), and believing that one's life has a purpose (The Meaning in Life

Questionnaire; Steger, Frazier, Oishi, & Kaler, 2006), each of which contributes to the

perception of meaning in the world or to overall wellbeing.

   A level of comfort with unstructured circumstances can act as a defense against death

anxiety by opening the door to new interpretations of the world and unearthing meaning where

previously there was fear (Vess, Routeledge, Landau, & Arnt, 2000). Another way around the

natural feelings of anxiety that death provokes is to believe in religion, but particularly if this

belief stems from within oneself rather than from an external motivation (Thornson, 1990).

Among terminally ill participants, spirituality was found to predict well-being in the face of

tangible death (Reed, 1987) and to act as a buffer against associated fear (Edmondson, Park,

Chaudoir, & Wortmann, 2008). In a general population, believing in a just world has similarly

been found to strongly predict subjective well-being (Dzuka & Dalbert, 2006). Because of their

collective contributions to emotional well-being and meaning in the world, I chose to focus on

these constructs to measure the strength of participants' worldviews in the present study.

Method

Participants

Participants were recruited from a northeastern liberal arts college using their online

subject pool. Of the 156 participants, 102 (65.4%) identified as female, 53 as male, and one as

gender fluid. Seventy-two percent indicated their ethnic background as Caucasian, 8.3% as East

Asian, 7.1% as Latino/Hispanic, 5.1% as South Asian, 2.6% as African, .6% as Middle Eastern,

.6% as Caribbean, and 3.8% as "other." Their ages ranged from 17 to 24 ($M = 20.0$). In return for

participation, they received partial course credit or $4 cash.

Materials and Procedure

Participants arrived at the lab and were shown to individual cubicles containing a

computer on which they filled out a questionnaire. They were told the purpose of the study was

to learn more about how an individual's personality impacts their interpersonal relationships and

vice-versa. After providing informed consent by way of a clickable button, they filled out each

scale one at a time in the order presented below:

Attachment Style. The Experiences in Close Relationships Scale-Short Form (ECR-S;

Wei, Russell, Mallinckrodt, & Vogel, 2007) measures the dimensions of attachment anxiety and

attachment avoidance in regards to romantic partners. It consists of 12 items that concern

characteristic thoughts feelings, and actions of relating to relationship partners, with Likert

response options ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*). Six items (one

reverse-scored) are averaged to get a score for attachment anxiety (e.g., "I get frustrated if

romantic partners are not available when I need them") and the other six (three reverse-scored) to

get a score for attachment avoidance (e.g., I try to avoid getting too close to my partner).

A modified version of the ECR-S was used in which each of the 12 items was asked in

regards to three types of close others: caregivers, peers, and romantic partners. For each item,

where "romantic partner" would normally appear, a blank space was inserted instead (i.e., "It

helps to turn to my _____ in times of need"). Below, a set of Likert response options were

given for each close relationship partner, such that participants rated their agreement with each

statement in regards to their caregivers, peers, and romantic partners before moving onto the next

item.

This modification was used in part for efficiency's sake, but also to emphasize the

differences between each relationship. Participants were instructed to "consider [their] responses

for each type of close relationship partner independently of each other" so that any differences

between partners could come out.

Self-esteem. The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) is a ten item

scale measuring attitudes towards one's self. Items ask about one's perceived utility (e.g., "I

certainly feel useless at times" [reverse-scored]), success (e.g., "All in all, I am inclined to feel

that I am a failure" [reverse-scored]), and general regard (e.g., "I take a positive attitude toward

myself"). Response options range from 1 (*Strongly disagree*) to 7 (*Strongly agree*).

Spirituality. The Spiritual Transcendence Index (STI; Seidlitz et al., 2002) measures the strength of one's relationship with the sacred and the perceived strength it lends to them in the face of difficulties. The eight item scale asks about spirituality in explicit reference to God (e.g., "God helps me to rise above my immediate circumstances") and in more abstract terms (e.g., "My spirituality helps me to understand my life's purpose"), all with Likert response options ranging from 1 (*Strongly disagree*) to 6 (*Strongly agree*).

Attainment of Meaning. The Meaning in Life Questionnaire (MLQ; Steger, Frazier, Oishi, & Kaler, 2006) is a ten item scale with two roughly orthogonal subscales, measuring the presence of and search for meaning in one's life, respectively. Five items (one reverse-scored) ask about a feeling of clarity regarding one's purpose (e.g., "I have a good sense of what makes my life meaningful") and five about the desire for such a feeling (e.g., "I am always searching for something that makes my life feel significant"), with response options ranging from 1 (*Absolutely untrue*) to 7 (*Absolutely true*). In its instructions, the scale asks participants to consider what feels important about their life before responding to the items. Although both subscales were included in the questionnaire, only the presence of meaning was important to this study, not the search for it.

Intrinsic Religiosity. The Intrinsic-Extrinsic Religiosity (IER; Gorsuch & McPherson, 1989) measures three facets of religiosity: intrinsic, extrinsic social, and extrinsic personal. Of interest to the present study is the intrinsic religiosity subscale only, which consists of five items measuring the extent to which one's religion is central to their life (e.g., "I try hard to live my all my life according to my religious beliefs"). Response options range from 1 (*Disagree strongly*) to 7 (*Agree strongly*). Intrinsic religiosity in particular was chosen for its contribution in shaping meaning in life (Masters & Bergin, 1992).

Belief in a Just World. The General Belief in a Just World Scale (GBJW; Dalbert, Montada, & Schmitt, 1987) is a six item scale measuring the extent to which one thinks the world operates fairly (e.g., "I believe that, by and large, people get what they deserve"). Responses are given on a 1 (*Strongly disagree*) to 6 *(Strongly agree)* scale.

Structure. The Personal Need for Structure Scale (PNS; Thompson, Naccarato, & Parker, 1989) measures preference for order in one's life both physically (e.g., "I like to have a place for everything and everything in its place") and mentally (e.g., "I don't like situations that are uncertain"). The response options for the twelve item scale range from 1 (*Strongly disagree*) to 6 (*Strongly agree*).

Demographics. The final page of the questionnaire asked for demographic information, including age, gender, ethnicity, and romantic relationship status.

Results

Levels of attachment anxiety and avoidance were calculated in regards to caregivers, friends, and romantic partners from the ECR-S (Wei, Russell, Mallinckrodt, & Vogel, 2007). Because it is the first to emerge, attachment style towards caregivers was used as a baseline from which to compare other close relationships. As described above, though, attachment style is far from stable and should be expected to change across partners. The present study is not concerned with raw change in attachment, but rather in deviations from the changes that everybody experiences. To represent these deviations, standardized residuals were calculated rather than raw difference scores. I chose this approach because it reveals individual (i.e., relative) tendencies without contamination from normative tendencies. Using simple difference scores, if most participants increase one scale point on avoidance and one participant increases by two points, they are all seen as increasing, but part of the increase is due to non-individual variance.

Using standardized residuals, the unusual nature of this participant's scores is emphasized

because his change in avoidance will be scored as a positive deviation, compared to the null

deviation of all other participants whose avoidance scores all increased in a similar way. In this

way, standardized residuals highlight when changes in attachment style are different than would

be predicted given the change that is normal within the sample.

 For this study, standardized residuals were calculated by regressing anxiety and

avoidance scores for friends and romantic partners (independently) onto anxiety and avoidance

scores for caregivers, respectively, and saving standardized residuals for each. These scores

produced four metrics of deviation in attachment style trajectory: deviations in anxiety from

caregivers to friends, anxiety from caregivers to romantic partners, avoidance from caregivers to

friends, and avoidance from caregivers to romantic partners.

 To better contextualize these deviations from normative changes, it is helpful to know

what change is considered normal within the sample. Difference scores (shown in Table 1) were

calculated by subtracting attachment anxiety and avoidance (independently) towards caregivers

from anxiety and avoidance to friends and romantic partners. Participants tended to become more

anxious with each successive relationship group, so that their anxiety with friends increased from

baseline but their anxiety with romantic partners increased even more. The change in avoidance

was less marked, with participants being equally avoidant with their friends but more avoidant

with their romantic partners compared to their avoidance with their caregivers. With the

exception of avoidance towards friends, this sample was markedly *more insecure* in their peer

attachment relationships than they were in their relationships with caregivers.

 Then, scores were calculated for predictor variables: self-esteem (RSES; Rosenberg,

1965), belief that the world is just (GBJW; Dalbert, Montada, & Schmitt, 1987), attainment of

meaning in life (MLQ; Steger, Frazier, Oishi, & Kaler, 2006), need for structure (PNS; Thompson, Naccarato, & Parker, 1989), intrinsic religiosity (IER; Gorsuch & McPherson, 1989), and spirituality (STI; Seidlitz et al., 2002). Based on a Pearson's correlation of $r = .85$ ($p < .01$), scores on intrinsic religiosity and spirituality were averaged to create just one measure of religiosity. Pearson's correlation between self-esteem and meaning in life was also high ($r = .63$, $p < .01$), suggesting a degree of overlap that could suppress individual contributions to deviations, but not so high as to suggest that the two measures are again studying just one construct. For intercorrelations among all predictor variables, see Table 2 in the appendix.

To see which of these self-esteem and worldview measures were able to account for deviations in attachment security changes, a series of multiple linear regression analyses were performed. The regression for anxiety towards friends explained 15.3% of the variance. Deviations were significantly negatively predicted by self-esteem alone ($\beta = -.29$, $t = -2.93$, $p < .05$), marginally positively predicted by need for structure ($\beta = .15$, $t = 1.93$, $p = .06$), and not predicted by any other measures of interest ($ps > .10$), such that participants whose anxiety towards their friends was lower than would be expected given their anxiety towards their caregivers tended to feel more positively about themselves and require less personal structure than their increasingly anxious counterparts.

The regression for anxiety towards romantic partners explained 8.7% of the variance and followed the same pattern as did anxiety towards friends. Deviations were again significantly negatively predicted by self-esteem ($\beta = -.27$, $t = -2.65$, $p < .01$) and significantly positively predicted by a need for structure ($\beta = .18$, $t = 2.19$, $p < .05$) but not predicted by any other measures of interest ($ps > .10$). Those who were less anxious with their friends than would be expected had higher self-esteem and less need for structure.

Attachment avoidance did not follow the above pattern to a tee, but similarly emphasized the role of self-esteem. The regression for attachment avoidance towards friends explained 14.5% of the variance. Deviations were significantly negatively predicted by self-esteem (β = -.24, t = -2.43, $p < .05$), significantly positively predicted by religiosity (β = .21, t = 2.72, $p < .01$), and marginally positively predicted by need for structure (β = .14, t = 1.78, $p = .08$). Deviations were not significantly predicted by belief in a just world or attainment of meaning ($ps > .10$). On average, participants whose avoidance towards their friends was lower than would be expected given their avoidance towards their caregiver tended to regard themselves more positively, have weaker religious ties, and be comfortable with less structure than those who became more avoidant than would be expected.

For attachment avoidance towards romantic partners, the regression explained 4.4% of the variance. Deviations were significantly negatively predicted by self-esteem (β = -.27, t = -2.61, $p = .01$) but not predicted by any other measures of interest ($ps > .10$). As in each scenario thus far, those participants whose attachment avoidance was less than would be expected tended to have higher self-esteem.

Discussion

Participants as a whole tended to become increasingly insecure with successive attachment figures, expressing increased anxiety and avoidance towards peer figures than towards their caregivers. This makes sense because many friends and romantic relationships during college are still budding, and participants may be feeling insecure in their new environment.

Deviations from the normative changes in attachment style across partners were partially accounted for by variance in self-esteem in all cases, such that those with higher self-esteem

seemed to be somewhat protected against the normal trend towards insecurity. No one measure of worldview strength was able to account for the rest of the variation, but high need for structure significantly predicted increased anxiety and avoidance above the norm. It is possible that need for structure and attachment anxiety are both reflecting a third variable: general levels of insecurity. High religiosity predicted avoidance with romantic partners in much the same way as need for structure, but it was not significant in predicting avoidance with friends. Perhaps the restrictive rules which religion often imposes upon sexual relations is partly to blame for the increased avoidance in non-platonic relationships. While self-esteem seemed to act as a buffer against insecure attachment dimensions, these particular world views were catalysts for insecurity.

The study looked exclusively at college students because of the exaggerated changes their attachment styles are presumably going through. Because worldviews are the last branch of security to develop in the tripartite model (Hart et al., 2005) and college students are going through so many changes, it is possible that their worldview convictions are not as stable as those of older adults. Measures of worldview conviction did not significantly predict deviations in attachment style in this sample, but perhaps they would do so in a sample that is not limited to college students whose attachment and worldviews are both in flux. Study 2 was conducted to assess this possibility.

Study 2

Method

Participants

Participants were 153 people recruited from Amazon's online survey platform Mechanical Turk (MTurk).[2] Their ages ranged from 21 to 65 ($M = 34.24$) and gender was evenly

split (76 males and 77 females). The majority of the sample identified their ethnic background as

Caucasian (79.1%), followed by African (8.5%), Latino/Hispanic (7.2%), East Asian (5.9%),

Caribbean (2%), and South Asian heritage (0.7%), with 2.6% of participants endorsing "other".

As compensation for participating, they received $1.25.

Materials and Procedure

Participants completed the same questionnaire as was described in Study 1. However,

they filled it out online rather than in a laboratory setting.

<div align="center">

Results

</div>

The normal change in attachment style, shown in Table 1, was less in this sample than in

the college student sample. Again, the changes were more marked with progressive relationship

partners, such that the difference in attachment style from caregivers to romantic partners was

larger than the difference between caregivers and friends. Interestingly, participants as a whole

became *less avoidant* but still became *more anxious* in their peer attachment relationships as

compared with their caregivers.

Again, standardized residuals were calculated by regressing anxiety and avoidance

scores for friends and romantic partners onto anxiety and avoidance scores for caregivers,

respectively, and saving standardized residuals for each. These scores produced the same four

metrics of deviation in attachment style trajectory: deviations in anxiety from caregivers to

friends, anxiety from caregivers to romantic partners, avoidance from caregivers to friends, and

avoidance from caregivers to romantic partners.

A series of multiple linear regression analyses were performed to see which other

measures (i.e., self-esteem, belief in a just world, religiosity, attainment of meaning in life, and

personal need for structure) were able to account for these deviations. The regression for anxiety

towards friends explained 11.6% of the variance. Deviations were significantly negatively predicted by self-esteem alone ($\beta = -.33$, $t = -3.27$, $p < .01$) and not by any other measures of interest ($p > .05$), meaning that participants who had high self-esteem became less anxious than those with low self-esteem.

The regression for anxiety towards romantic partners explained 14.7% of the variance. Deviations were significantly negatively predicted by attainment of meaning ($\beta = -.18$, $t = -1.99$, $p < .05$) and marginally negatively predicted by self-esteem ($\beta = -.18$, $t = -1.81$, $p < .10$) and positively by need for structure ($\beta = .15$, $t = 1.93$, $p < .10$), but were not predicted by any other measures of interest ($p > .10$). In this sample, increases in anxiety towards romantic partners was diminished by high self-esteem, presence of meaning, and low need for structure.

Attachment avoidance followed a similar pattern. The regression for attachment avoidance towards friends explained 8.0% of the variance. Deviations were significantly negatively predicted by self-esteem ($\beta = -.36$, $t = -3.56$, $p < .01$) and marginally positively predicted by attainment of meaning ($\beta = .19$, $t = 1.84$, $p < .10$). Deviations were not significantly predicted by belief in a just world, attainment of meaning, or personal need for structure ($p > .10$). Those who became less avoidant than the norm with friends tended to feel positively about themselves and not feel as though their life was particularly meaningful.

For attachment avoidance towards romantic partners, the regression explained 12.6% of the variance. Deviations were significantly negatively predicted by self-esteem ($\beta = -.32$, $t = -3.23$, $p < .01$), and were not significantly predicted by any other measures of interest ($p > .05$). As with all other scenarios, participants who regard themselves positively decreased their insecurity the most.

Discussion

Self-esteem significantly explained a portion of deviation in attachment anxiety with friends, and marginally so with romantic partners, such that participants with higher self-esteem tended to become less anxious with later attachment figures. For deviations in avoidance, the contribution of self-esteem was significant in both cases. Attainment of meaning and need for structure both contributed to predictions to some extent, but their effects were neither as significant nor as consistent as that of self-esteem. Participants who had greater need for structure tended to become more anxious with later partners, and those who endorsed greater attainment of meaning became less anxious with romantic partners than would be expected but more avoidant with friends.

General Discussion

The present studies sought to explain deviations in attachment style across partners through the strength of the other branches of the tripartite security system (i.e., self-esteem and worldviews; Hart et al., 2005). I hypothesized that the deviations would be inversely related to scores on measures of self-esteem and worldview strength, such that participants who were less avoidant or anxious with friends and romantic partners than would be predicted given their attachment style with their caregivers would have higher self-esteem and stronger endorsement of common worldview measures, and vice-versa.

Across the board, self-esteem had the predicted relationship with deviations in attachment style. For the college students in Study 1 and the MTurk sample in Study 2, higher self-esteem predicted more positive deviations in attachment anxiety and avoidance. Because the trend in both samples is towards increasing anxiety, this pattern of results implies that self-esteem is acting as a buffer against insecurity. This supports the tripartite security system model's (Hart et al., 2005) assertion that the different branches are somewhat interchangeable with one another in

the maintenance of psychological security. Is high self-esteem a precursor to finding a secure

attachment relationship, or does getting involved in a secure relationship increase self-esteem?

Whether the positive regard for oneself or the increasingly secure dynamic with relationship

partners comes first needs further research to explore, but it is clear that the two are tied together:

more love for oneself predicted a more secure love for another in both samples and across both

attachment dimensions.

   The role of worldviews, however, was not quite as cut and dried. Although

research suggests that any belief that orders the world and imbues it with meaning would act in a

similar compensatory manner as self-esteem, the abundance of belief systems to which people

subscribe may have made it hard to pinpoint their overall effect. Everybody has views about how

the world works which provide comfort, but to say that these views are the same for everyone

would be an oversimplification. For some people, believing that the world is a generally just

place may be comforting, for others, reliance on religious ideology may achieve the same goal,

and for still others, it may be more comforting to believe that the world is actually a chaotic

mess. Worldviews are not a one-size-fits-all phenomenon, and in that regard it makes sense that

no single belief system had a recurring significant effect on security. A non-specific measure of

the strength of one's convictions is needed to study worldviews as a whole.

  The measures of religiosity and spirituality were both difficult to answer to people of

non-Judeo-Christian or non-existent faith. Some participants may have indicated their non-

endorsement of these statements with low Likert scale responses but others may have responded

neutrally, muddying responses on these measures. Rather than relying on measures of common

worldviews, which are diverse and often imbued with specific religious beliefs, future studies

should use a measure of non-specific worldviews. Such a scale should measure the extent to

which participants find the world a meaningful and ordered place (not just the presence of meaning in their own lives, as measured by the MLQ; Steger, Frazier, Oishi, & Kaler, 2006) but should not be specific to any one belief system. Such a scale would allow participants who organize the world in any way to score highly, even if their beliefs were counter to what would be expected—for example, someone who rejects religious ideology and finds comfort in believing the world is consistently unjust.

In spite of such methodological constraints, some worldview measures still significantly predicted deviations in attachment style. In several regressions, high need for structure significantly predicted increases in anxiety, which could be due to an underlying connection between the two. Perhaps, for example, people who require a very structured life and people who cling to their attachment figures are just generally anxious or neurotic people, and this one personality trait is influencing both.

Because the MLQ is the most direct measure available of a worldview that imbues the world with meaning, it is surprising that it was rarely a significant predictor of attachment style deviations. However, this may be due to its large overlap with self-esteem (see Table 2) suppressing its individual effect.

The only case in which religion played a significant role is by increasing avoidance towards romantic partners in a college sample in Study 1. Because of the often restrictive rules which major religions place upon sexual relations between their unwed followers, college student who identify as religious people may have many hang-ups about involving themselves romantically. Their increased avoidance towards romantic partners may speak more to the particular constraints religions place on romantic relationships than anything else, particularly because religion did not have a similar effect the adult (and largely married) sample.

Although other studies have been done which predict similar results as were found in the present study, they are largely experimental in nature; because of limited ecological validity, they could be studying a phenomenon that does not exist in the real world. Although participants turn to other branches of the security system when one branch is experimentally threatened (e.g., Hart et al., 2005), they may not do so when confronted with a naturally-occurring threat. Although a participant may rate a worldview-conforming essay more positively when his attachment has been threatened with a pen-and-paper prompt, he may instead focus his attention on his attachment figure when confronted with a similar situation in his life. Now that the relationship between self-esteem, worldviews, and attachment has been well-established in a laboratory setting, it is time to see whether they manifest themselves similarly in reality. The present study extends experimental findings on the compensatory nature of self-esteem and attachment security to the trait level, showing that loving oneself may very well be the key to loving others in a secure way, but leaves the door open as to the exact role of worldviews.

Now that the relationship has been examined in experimental and correlational studies, the next step is to switch methods once again and to conduct a longitudinal study. Because participants in the present study were probed about their *current* relationship dynamics with all partners, it is not clear that deviations in attachment styles across partners actually reflect developmental changes and not categorical differences in the way participants relate to attachment figures as caregivers, friends, and romantic partners. A study which followed a person's attachment styles across their lifespan (and particularly before and during college) would greatly enhance the utility of the present results by providing a baseline against which to measure *actual* change over time.

Until such a study has been carried out, correlational data will have to do. Data from the present study all points to one conclusion: loving yourself is a key variable associated with loving others in a healthy way. Despite the increasing insecurity that others around you experience, feeling positively about yourself can protect you from a similar fate. Conversely, feeling poorly about yourself is likely to exacerbate insecurity. Perhaps it is a self-fulfilling prophecy: you feel good about yourself, and so you only involve yourself with people who treat you well, thereby increasing your attachment security and also your self-esteem. Although we don't know which is the chicken and which is the egg in this scenario, increased self-esteem and increased attachment security go hand in hand and suggest that loving yourself is a powerful buffer against the worries of the world.

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Table 1

Attachment Dimension	Attachment Relationship	Sample			
		Study 1		*Study 2*	
		M	*SD*	*M*	*SD*
Anxiety	*Friends*	.86	.91	.25	.85
	Romantic Partners	1.15	1.05	.54	.93
Avoidance	*Friends*	-.01	1.23	-.13	1.18
	Romantic Partners	.48	1.38	-.66	1.33

Table 1: Changes in attachment from caregivers to peer attachment figures.

Note. Changes were calculated by subtracting caregiver scores from peer scores, so that positive scores indicate an increase on that dimension (i.e., *more insecurity*) and negative scores indicate a decrease on that dimension (i.e., *less insecurity*). A change of 1.00 would indicate that participants, on average, scored one scale point higher on a given dimension with their peer relationship partner than with their caregiver on a seven-point scale.

Table 2

Measure	1	2	3	4	5	6	7
1. RSES	—	.07	.63**	-.26**	.10	.03	.06
2. GBJW	.42**	—	.18*	.20*	.06	-.03	.01
3. MLQ	.61**	.41**	—	-.11	.19*	.14	.17*
4. PNS	-.04	.11	.01	—	.12	.14	.14
5. STI	.16*	.21*	.27**	.02	—	.85**	.96**
6. IER	.12	.16*	.27**	.04	.93**	—	.96**
7. Religiosity	.14	.19*	.28**	.03	.98**	.98**	—

Table 2: Summary of intercorrelations between predictor variables.

Note. Intercorrelations for Study 1 (n = 156) are presented above the diagonal, and intercorrelations for Study 2 (n = 153) are presented below the diagonal. For all scales, higher scores indicate more extreme responding in the direction of the assessed construct. RSES = Rosenberg Self-Esteem Scale; GBJW = General Belief in a Just World Scale; MLQ = presence subscale of Meaning in Life Questionnaire; PNS = Personal Need for Structure Scale; STI = Spiritual Transcendence Index; IER = intrinsic subscale of Intrinsic-Extrinsic Religiosity; Religiosity = an aggregate score of religiosity that averages STI and IER.
* $p < .05$; ** $p < .01$

Endnotes

[1] Because prototypical models of anxiety, avoidance, and security are rarely manifested so cleanly in the real world, attachment style is measured dimensionally rather than categorically. Based on a meta-analysis of attachment-related constructs (Brennan, Clark, & Shaver, 1998), a person's style can be plotted on the two dimensions of anxiety and avoidance and can be high or low on both dimensions. However, for the sake of concision, we often refer to people in stylistic terms: avoidant, anxious, or secure.

[2] Amazon's Mechanical Turk is a fast and inexpensive site from which to recruit and run participants. Samples obtained for psychological research using this tool are demographically diverse and produce data that is just as reliable as traditionally-obtained data (Buhrmester, Kwang, & Gosling, 2011).