

Adult Attachment as a Predictor of Touch Attitudes and
Touch Behavior in Romantic Relationships

by

Chelsea R. Samples-Steele

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of Bachelor of Arts

With Honors in Psychology from the

University of Michigan

2011

Advisor: Dr. Robin Edelstein

Abstract

Adult attachment predicts relationship quality and functioning, and physical contact has important positive implications for close relationships. However, little existing research connects these three constructs. The purpose of this thesis is to examine adult attachment as a predictor of touch attitudes and touch behaviors within the context of adult romantic relationships. We utilize various measures to assess adult attachment orientation, perceived relationship quality, and touch attitudes, including the Experiences in Close Relationships Inventory (ECR; Brennan, Clark, & Shaver, 1998a), Investment Model Scale (Rusbult, Martz, & Agnew, 1998), and Seven Touch Scales (Brennan, Wu, & Loev, 1998b). We also measure attitudes about cuddling, one component of touch in close relationships (van Anders, Edelman, Wade, & Samples-Steele, 2011). Our results show that avoidantly attached individuals are less satisfied with their current romantic relationships, less invested in their relationships, more likely to find touch to be aversive and to use touch to control their partners, and more likely to feel negative during cuddling experiences. However, avoidant individuals also desire more touch in their relationships. Our results show that anxiously attached individuals are more invested in their relationships, desire more touch in their relationships, are more likely to use touch to gain or provide affection, and are more likely to use touch for caregiving and careseeking reasons. Taken together, these findings demonstrate the connections between attachment and touch, which can influence outcomes in romantic relationships.

Keywords: Adults, romantic relationships, attachment style, touch, relationship satisfaction, cuddling

Adult attachment as a Predictor of Touch Attitudes and Touch Behavior in Romantic Relationships

Throughout the lifespan, touch leads to positive outcomes in health, development, emotions, and relationships. Among infants and children, touch has been shown to improve depression and enhance intellectual development (Casler, 1965; Spitz & Wolf, 1946). Similarly, the amount of time caregivers spend touching and holding their infants is associated with favorable weight gain, attentional skills, emotion regulatory capacities, and attachment security (Feldman, Weller, Sirota, & Eidelman, 2002; Polan & Ward, 1994; Tracy & Ainsworth, 1981). In adults, the introduction of touch during painful situations has been shown to decrease heart rate, systolic blood pressure, diastolic blood pressure, and pain ratings (Drescher, Whitehead, Morrill-Corbin, & Cataldo, 1985; Fishman, Turkheimer, & DeGood, 1995; Grewen, Anderson, Girdler, & Light, 2003), and therapeutic touch has been shown to decrease perceived anxiety in highly anxious individuals (Olson & Sneed, 1995). Touch is also positively associated with positive affective states (Fisher, Rytting, & Heslin, 1976), and comfort with touch (one's willingness to engage in touch activities) is positively associated with life satisfaction, self-confidence, and decreased negative affect (Fromme et al., 1989).

In addition to the positive influence of touch on health, development, and emotions, touch is an important factor within the context of adult romantic relationships. Several studies have suggested that greater frequency of physical affection is associated with greater marital and relationship satisfaction (Bell, Daly, & Gonzalez, 1987; Gulledge, Gulledge, & Stahmann, 2003). Similarly, individuals in romantic relationships tend to perceive touch from partners as expressing warmth, love, and commitment (Johson & Edwards, 1991; Pisano, Wall, & Foster, 1986). Touch in romantic relationships has also been linked to the release of oxytocin (Shermer,

2004), a hormone that is associated with bonding in relationships (Gulledge, Hill, Lister, & Sallion, 2007).

Touch between romantic partners also influences the experience of stress. Grewen and colleagues (2003) found that individuals who engaged in physical contact with their partners prior to a stressful situation had lower systolic and diastolic blood pressure and lower heart rate than those who did not have physical partner contact prior to the situation, demonstrating that partner touch may decrease reactivity to stressful life events (see Gallace & Spence, 2010). Similarly, Ditzen and colleagues (2007) found that women who received physical contact from their partners before a stressful situation showed lower cortisol levels and lower heart rate in response to the stressor than women who received only social support or those who did not receive any form of support.

There is a large amount of research demonstrating that touch facilitates important positive outcomes in individual development and well-being, as well as in the maintenance and quality of romantic relationships. However, despite the overwhelming positive influences of touch, very little research has examined predictors of touch in romantic relationships. The purpose of this study is to gain insight into the individual differences involved in the experience of and attitudes toward touch in adult romantic relationships, and to examine a potential predictor of touch: adult attachment orientation.

Attachment Theory

Attachment theory was originally developed to explain why infants become attached to their caregivers and why they display distress following separation (Bowlby, 1982). Following later observations, Ainsworth, Blehar, Waters, and Wall (1978) extended Bowlby's theory to view attachment as a continuously functioning system, the primary goal of which is the infant's

reliance on the caregiver for security. In order to examine differences in infant attachment style, Ainsworth and colleagues developed the Strange Situation task. In this task, researchers conducted a series of separations and reunions between infants and their caregivers. After observing each of the separations and reunions, Ainsworth and colleagues (1978) designated the infants to one of three groups:

Secure attachment. Infants who are securely attached are happy to see their caregivers upon reunion. If they are distressed, they seek comfort from their caregivers, and are easily comforted. In general, securely attached infants are more cooperative and have more positive interactions with their caregivers than infants in the other two groups, and they use their caregivers as a secure base from which to explore the environment. Importantly, securely attached infants are more positive in their response to close physical contact with their caregivers than are anxiously or avoidantly attached infants (described next).

Avoidant attachment. Infants who are avoidantly attached show little distress during separation from their caregivers, and they appear unconcerned with or avoidant of their caregivers upon reunion, often ignoring them. However, other indices of distress (e.g., physiological measures, Spangler & Grossmann, 1993) suggest that they are indeed upset by the separation. When their caregivers return, avoidant infants tend to avoid gaze with them, which is a method of discouraging interaction. Avoidant babies also avoid physical contact with their caregivers: they often begin to approach their caregivers as if desiring physical proximity, but then suddenly turn away.

Anxious-resistant attachment. Infants who are anxiously attached are unsure what to do upon the return of their caregivers, and they are not easily comforted. Anxiously attached infants cry more often than securely attached infants, and they appear to believe their caregivers to be

inaccessible or unresponsive. They do not use their caregivers as a secure base, and they are not as positive in response to close physical contact as are securely attached infants. Specifically, anxiously attached infants protest if they are held when they don't want to be held, and they protest if they are put down when they still want to be held.

Ainsworth's Strange Situation task displays anxiously and avoidantly attached infants' discomfort with physical contact in parent-child relationships, compared with a positive reaction towards touch by securely attached infants. More recently, researchers have extended attachment theory to explain outcomes in adult romantic relationships (e.g., Hazan & Shaver, 1987; Mikulincer & Shaver, 2007). As described next, a wealth of information has been generated to explain various aspects of relationship functioning as it relates to secure, anxious, and avoidant adults.

Adult secure attachment. Securely attached adults tend to feel stable and committed in close relationships, and they rarely worry about being abandoned by relationship partners (Gentzler & Kerns, 2004). They also tend to believe in enduring true love and have happy and trusting love experiences (Hazan & Shaver, 1987). When they are involved in stressful situations, secure individuals seek emotional support from their partners, and they are also willing to provide emotional support when their partners are in stressful situations (Simpson, Rholes, & Nelligan, 1992). Within the context of romantic relationships, secure attachment style is associated with positive relationship outcomes. A secure attachment style is positively associated with relationship commitment, relationship satisfaction, greater relationship interdependence, and positive emotions within the relationship (Feeney, 2008; Simpson, 1990).

Adult avoidant attachment. In contrast with securely attached adults, avoidant adults tend not to believe in romantic love as depicted in movies, do not believe that love lasts, do not

fall in love easily, and report a fear of intimacy (Hazan & Shaver, 1987). They tend not to trust their partners as much as securely attached individuals do, and they tend to be more ambivalent toward relationship partners (Brennan & Shaver, 1995). Avoidant individuals tend not to seek emotional support from partners or provide emotional support to partners in stressful situations (Edelstein et al., 2004; Simpson et. al, 1992). In a sexual relationship context, avoidant individuals tend to use sex to manipulate and exert power over sexual partners (Davis, Shaver, & Vernon, 2004). In general, avoidant attachment style is associated with more negative emotions and outcomes in romantic relationships (Feeney, 2008; Simpson, 1990).

Adult anxious attachment. Anxiously attached adults tend to fall in love easily and frequently, though they have difficulty finding “real love.” They feel that their desires for closeness are not reciprocated, and they are often untrusting, jealous, and clingy (Brennan & Shaver, 1995; Hazan & Shaver, 1987). Anxiously attached adults tend to be overly dependent on their partners, often to the point of obsession, and fear abandonment in their romantic relationships (Bartholomew, 1990; Hazan & Shaver, 1987). Similar to the correlates of attachment avoidance, anxious attachment is associated with less positive emotions and more negative emotions in romantic relationships (Feeney, 2008; Simpson, 1990).

Individual differences in adult attachment orientation are currently measured in terms of two continuous dimensions, attachment anxiety and avoidance (e.g., Fraley & Waller, 1998), rather than with the three-category model used by earlier attachment researchers. In this two-dimensional framework, securely attached individuals are those who score low on both anxiety and avoidance.

Adult Attachment and Touch in Romantic Relationships

Although there is a vast literature focusing on adult attachment, experiences of touch, and romantic relationships, very few studies examine these three concepts together. However, there is some evidence that avoidant and anxious attachment are associated in predictable ways with experiences and perceptions of physical contact. Based on evidence that secure attachment is related to more positive relationship experiences, we expected that secure individuals would be more satisfied with and committed to their relationships. Because they tend to touch their partners more, are more nonverbally expressive, and tend to feel more stable in close relationships (Gentzler & Kerns, 2004; Guerrero & Bachman, 2006; Tucker & Anders, 1998), we expected that secure individuals would enjoy and feel more positive toward the touch they experience in their romantic relationships, would be more satisfied with the amount of touch in their relationships, and would be more likely to use touch to achieve emotional closeness.

Based on evidence that avoidant individuals perceive touch as aversive (Brennan et al., 1998a), we expected that avoidant individuals would desire less touch from relationship partners and feel negatively about the touch they are experiencing. Brennan and colleagues (1998a) have also shown that avoidant individuals are less likely than secure individuals to use touch for caregiving and careseeking reasons, which leads us to expect similar findings in our study. Previous research shows that avoidant individuals use sex as a way to control their partners (Davis & Shaver, 2004), which leads us to expect that they would also be likely to use touch as a means of controlling and manipulating their partners. Finally, because avoidant individuals tend to be more ambivalent towards relationship partners, tend not to believe in enduring love, and tend to fear intimacy (Brennan & Shaver, 1995; Hazan & Shaver, 1987), we expected that

avoidant individuals would be less invested in their relationships and report lower relationship satisfaction.

Because anxiously attached individuals tend to feel unsatisfied with the amount of touch in their relationships, feel unsupported by their relationship partners, and are extremely dependent on their partners (Bartholomew, 1990; Campbell, Simpson, Boldry, & Kashy, 2005; Hazan & Shaver, 1987), we expected that anxious individuals would desire more physical contact in their romantic relationships, would be likely to use touch to achieve emotional closeness with their partners, and would be more invested in their relationships. We also expected that anxious individuals, who feel that their desires for closeness are not reciprocated (Hazan & Shaver, 1987), would be unsatisfied with their current relationships and would feel negative about the touch they are experiencing.

Although attachment predicts relationship quality and functioning, and physical contact has important positive implications for close relationships, very little research exists that examines the impact of attachment on touch behavior and touch attitudes within the context of adult romantic relationships. A more complete understanding of the associations between attachment and touch behavior can advance knowledge about predictors of relationship satisfaction and stability. In order to foster a better understanding of attachment-related behaviors and predictors of touch in adult romantic relationships, this study will examine touch attitudes and touch behaviors as a function of individual differences in attachment.

Method

Overview

Participants were recruited through community advertisements and internet postings, which included Craigslist and Amazon Mechanical Turk (MTurk). To be eligible, participants

had to be 18 years of age or older and able to read and write in English. In addition to these requirements, participants had to be in a romantic relationship and not currently experiencing partner abuse.

Recruitment materials provided a link to the online survey. Participants first saw an introduction screen with information about the study, followed by the informed consent page, and then the questionnaires. Those who reported their relationship status as “single” were auto-exited from the questionnaire. Each participant who completed the questionnaire answered questions about experiences of cuddling, an important component of touch in intimate relationships (van Anders et al., 2011), in their current romantic relationships. In addition to these questions, each participant also completed measures of adult attachment, relationship satisfaction, and feelings about touch in romantic relationships. Upon completion of the survey, participants were given the option to enter their contact information to be entered into a raffle for a prize of \$50. Those who completed the survey through MTurk were paid 50 cents for participation (consistent with other studies of similar length posted on MTurk). The names and contact information of all participants were disassociated from their responses.

Participants

This study included 254 participants: 142 women ($M\ age = 26.8$ years, $SD = 7.8$) and 112 men ($M\ age = 31.7$ years, $SD = 11.1$). Participants self-reported their ethnicity, and we categorized their responses as: 73% white, 11% Asian, 7% Latino/a/Hispanic, 5% black or African American, 4% multiracial, and less than 1% Pacific Islander. Similarly, we categorized participants' self-reported responses about sexual orientation as: 80% heterosexual, 18% LGBTQ, and 2% nonresponding. When asked to report relationship status, 81% reported being in committed relationships, 8% ‘going out,’ 5% casually dating, and 6% ‘other’. An additional

38 participants completed part of the survey but either did not complete the attachment measure or did not specify their relationship status. These participants, as well as participants who reported being single, were not included in our analyses.

Materials

Adult attachment. Adult attachment was assessed with the Experiences in Close Relationships (ECR) Inventory (Brennan et al., 1998a; see Appendix A). The ECR is a widely used measure of attachment-related avoidance and anxiety. The 18-item avoidance subscale ($\alpha = .93$) reflects an individual's discomfort with closeness. The 18-item anxiety subscale ($\alpha = .92$) reflects an individual's concern about abandonment. Sample items include “I don't feel comfortable opening up to romantic partners” (avoidance), and “I often worry that my partner doesn't really love me” (anxiety). Participants rate the extent to which they agree with each statement, using a 7-point Likert scale, ranging from 1 (*disagree strongly*) to 7 (*agree strongly*).

Attitudes toward touch in romantic relationships. Attitudes toward touch in romantic relationships were assessed with the Seven Touch Scales (Brennan et al., 1998b; see Appendix B). This measure includes 51 items related to physical touch in romantic relationships, and participants rate the extent to which each item applies to them, using a Likert scale ranging from 1 (*never*) to 7 (*very often*). Responses are averaged to create seven subscales: *Desires More Touch* ($\alpha = .91$) includes 8 items¹ that assess the desire for more physical contact with partners (e.g., “Sometimes I wish my partner were more comfortable with being touched by me”); *Affectionate Proximity* ($\alpha = .88$) includes 9 items that measure the use of touch to gain or provide affection or emotional closeness (e.g., “I often touch my partner as a way to express my feelings for him or her”); *Sexual Touch* ($\alpha = .91$) includes 7 items that measure touch as a way to express sexual desire or intimacy (e.g., “I use touch as a means to initiate sexual interaction with my

partner”); *Touch Aversion* ($\alpha = .78$) includes 9 items that measure the extent to which touch is perceived as aversive or annoying (e.g., “I generally don’t like my partner to touch me”); *Discomfort with Public Touch* ($\alpha = .36$)², includes 5 items that assess the extent to which touching in public is perceived negatively (e.g., “I think it is embarrassing when my partner touches me in public”); *Coercive Control* ($\alpha = .88$) includes items that assess touch as a way of controlling relationship partners or conveying aggression (e.g., “I use touch to convey my hostility or resentment toward my partner”); and *Safe Haven Touch* ($\alpha = .58$) includes 7 items that measure touch as a way of providing or seeking care (e.g., “When my partner is feeling under the weather, my first reaction is to touch him or her”).

Cuddling experiences. Cuddling experiences were assessed with a questionnaire designed for this study (see van Anders et al., 2011, for more details). We asked participants to respond to five items, which were answered in reference to the last time they cuddled with their romantic partner: “How much do you enjoy cuddling?”, “how positive do you feel after cuddling?”, and “how negative do you feel after cuddling?” were assessed on Likert scales ranging from 1 (*not at all*) to 7 (*very much*). “How nurtured/taken care of did you feel?” and “how protective (taking care of others) did you feel?” were assessed on Likert scales ranging from 1 (*not at all*) to 5 (*completely*).

Relationship satisfaction. Relationship satisfaction was assessed using the Investment Model Scale (IMS; Rusbult et al., 1998; see Appendix C). The IMS is a 37-item measure of individuals’ perceptions of and involvement in their relationships. Items are measured on a scale ranging from 1 (*don’t agree at all*) to 9 (*agree completely*), and the scale is divided into four subscales: *Satisfaction Level* ($\alpha = .97$), measures the extent to which individuals feel satisfied and fulfilled in their relationships (e.g., “Our relationship does a good job of fulfilling my needs

for intimacy, companionship, etc”); *Quality of Alternatives* ($\alpha = .93$) measures individuals’ perceptions of having more desirable options (or alternatives) outside of their current relationships (e.g., “If I weren’t dating my partner, I would do fine – I would find another appealing person to date”); *Investment Size* ($\alpha = .91$) measures the extent to which individuals believe they are invested in their current relationships, and the complications that would arise (due to this investment) if these relationships were to end (e.g., “I have put a great deal into our relationship that I would lose if the relationship were to end”); and *Commitment Level* ($\alpha = .87$) measures an individual’s level of commitment to his or her current relationship (e.g., “I feel very attached to our relationship –very strongly linked to my partner”).

Results

Preliminary Analyses

We first examined relations among our primary independent variables: attachment orientations, age, and gender. Age was negatively correlated with attachment anxiety, $r = -.16$, $p < .05$, but was not significantly correlated with avoidance, $p = .42$. Attachment anxiety was higher among women ($M = 3.74$, $SD = 1.18$) compared to men ($M = 3.32$, $SD = 1.28$), $t = 2.68$, $d = 0.34$, $p < .01$. Avoidant attachment did not differ significantly by gender, $p = .52$. Anxiety was also positively correlated with avoidance, $r = .30$, $p < .01$.

Gender Differences in the Touch, Cuddling, and Relationship Measures

We next examined gender differences in the touch scales and cuddling variables. Desire for more touch was greater among men ($M = 3.37$, $SD = 1.61$) compared to women ($M = 2.67$, $SD = 1.56$), $t = -3.50$, $d = 0.44$, $p < .01$. Aversion to touch was also higher among men ($M = 2.94$, $SD = 1.08$) compared to women ($M = 2.64$, $SD = 1.19$), $t = -2.05$, $d = 0.26$, $p < .05$. Using touch to gain or provide affection was greater among women ($M = 5.62$, $SD = 1.13$) than men ($M =$

5.02, $SD = 1.22$), $t = 4.06$, $d = 0.51$, $p < .01$. No other gender differences in the touch measures were significant, all p 's $> .13$.

Gender differences were also evident for feelings during cuddling. Feeling more nurtured during cuddling was higher among women ($M = 4.13$, $SD = 0.90$) than men ($M = 3.37$, $SD = 1.16$), $t = 5.69$, $d = 0.75$, $p < .01$. Enjoyment of cuddling was also greater among women ($M = 6.46$, $SD = 1.00$) compared to men ($M = 5.84$, $SD = 1.40$), $t = 3.96$, $d = 0.52$, $p < .01$. Finally, feeling positive during cuddling was greater among women ($M = 6.21$, $SD = 1.15$) compared to men ($M = 5.85$, $SD = 1.41$), $t = 2.21$, $d = 0.28$, $p < .05$. There were no significant gender differences in feeling protective ($p = .73$) or feeling negative during cuddling ($p = .36$).

We also examined gender in relation to the relationship measures. Perception of having more desirable relationship alternatives was higher among men ($M = 4.53$, $SD = 2.11$) compared to women ($M = 3.65$, $SD = 1.86$), $t = -3.54$, $d = 0.45$, $p < .01$. There were no significant gender differences in relationship satisfaction ($p = .22$), relationship investment ($p = .15$), or relationship commitment ($p = .07$).

Age Differences in the Touch, Cuddling, and Relationship Measures

We next examined correlations between age and the touch scales and cuddling variables. Younger participants reported using touch more often to gain or provide affection or emotional closeness, $r = -.22$, $p < .01$. Younger participants also reported feeling more nurtured during cuddling, $r = -.24$, $p < .01$, enjoying cuddling more, $r = -.13$, $p < .05$, and feeling more positive during cuddling, $r = -.15$, $p < .05$. There were no other significant correlations between age and the touch scales and cuddling variables, all p 's $> .09$.

We also examined age in relation to the relationship measures. Younger participants reported higher relationship satisfaction, $r = -.16, p < .01$. There were no other significant correlations between age and the relationship measures, all p 's $> .29$.

Sexual Orientation Differences in the Touch, Cuddling, and Relationship measures

In order to determine whether sexual orientation was related to the touch, cuddling, and relationship measures, we compared the means of two groups: those who reported being heterosexual, and those who reported being part of the LGBTQ community. We found that enjoyment of cuddling was higher among LGBTQ individuals ($M = 6.62, SD = 0.65$), than among heterosexual individuals ($M = 6.10, SD = 1.31$), $t = -3.92, d = 0.43, p < .01$. There were no other significant differences between the two groups in the touch scales, cuddling measures, or relationship variables, all p 's $> .08$.

Associations Between Attachment, Touch, and Cuddling Measures

Correlations between the attachment dimensions, touch scales, and cuddling variables are shown in Table 1. Attachment avoidance was positively correlated with desiring more touch, aversion to touch, using touch to control partners, and feeling negative during cuddling experiences. Attachment avoidance was negatively correlated with using touch to receive or show affection, using touch for sexual reasons, feeling nurtured during cuddling, feeling protective during cuddling, enjoying cuddling, and feeling positive during cuddling. Anxious attachment was positively correlated with desiring more touch, using touch to receive or show affection, aversion to touch, using touch to control partners, using touch for caregiving or careseeking reasons (safe haven), and feeling negative during cuddling experiences. There were no other significant correlations between attachment and the touch and cuddling measures.

Because of the intercorrelations among avoidance, anxiety, age, and gender, we also conducted regression analyses predicting the touch and cuddling measures from the attachment dimensions, age, gender, and sexual orientation. Results from these analyses (also presented in Table 1) were generally consistent with the zero-order correlations, with the exception that when controlling for avoidance, age, gender, and sexual orientation, avoidant attachment was significantly negatively correlated with using touch for caregiving and careseeking reasons. Anxious attachment was also significantly positively correlated with using touch for sexual reasons, and was no longer significantly correlated with using touch to control partners or with feeling negative during cuddling experiences.

Attachment-Related Differences in Relationship Measures

There were significant attachment-related differences in the relationship measures, which are shown in Table 1. Avoidant attachment was positively correlated with perception of desirable relationship alternatives, and negatively correlated with relationship satisfaction, relationship investment, and relationship commitment. Anxious attachment was negatively correlated with relationship satisfaction. There were no other significant correlations between attachment and the relationship measures.

Because of the intercorrelations among avoidance, anxiety, age, and gender, we also conducted regression analyses predicting the relationship measures from the attachment dimensions, age, gender, and sexual orientation. Results (presented in Table 1) were consistent with the correlations, with the exception that when controlling for avoidance, age, gender, and sexual orientation, anxious attachment was significantly positively correlated with relationship investment and relationship commitment, and was no longer significantly correlated with relationship satisfaction.

Associations between the Relationship Variables, Touch Scales, and Cuddling Variables

After establishing that attachment was related to the relationship variables, touch scales, and cuddling variables, we wanted to examine how the relationship variables, touch scales, and cuddling variables related to each other. Results, presented in Table 2, show that relationship satisfaction was positively correlated with using touch to receive or provide affection, using touch for caregiving and careseeking reasons, feeling nurtured during cuddling, feeling protective during cuddling, enjoying cuddling, and feeling positive during cuddling. Relationship satisfaction was negatively correlated with desiring more touch, aversion to touch, using touch to control partners, and feeling negative during cuddling. Perception of relationship alternatives was positively correlated with desiring more touch, aversion to touch, using touch to control partners, and feeling negative during cuddling, and negatively correlated with using touch to show affection, feeling nurtured and feeling positive during cuddling, and enjoying cuddling. Relationship investment was positively correlated with using touch to show affection, using touch for sexual reasons, using touch for caregiving and careseeking reasons, feeling nurtured, protective, and positive during cuddling, and enjoying cuddling. Relationship commitment was positively correlated with using touch to show affection, using touch for sexual reasons, using touch for caregiving and careseeking reasons, feeling nurtured, protective, and positive during cuddling, and enjoying cuddling. Relationship commitment was negatively correlated with desiring more touch, aversion to touch, using touch to control partners, and feeling negative during cuddling. There were no other significant correlations between the relationship variables, touch scales, and cuddling variables.

We also conducted regression analyses predicting the touch and cuddling variables from the relationship measures. Results (presented in Table 2) were generally consistent with the zero-

order correlations, with some exceptions: After controlling for the other three relationship variables, relationship satisfaction was no longer significantly correlated with aversion to touch, using touch to control partners, or using touch for caregiving or careseeking reasons. Perception of alternatives was no longer significantly correlated with using touch to show affection, feeling nurtured, positive, or negative during cuddling, or enjoying cuddling. Relationship investment became significantly positively correlated with desiring more touch and feeling more negative during cuddling, and was no longer significantly correlated with using touch to show affection, using touch for sexual reasons, feeling nurtured, protective, or positive during cuddling, or enjoying cuddling. Relationship commitment was no longer significantly correlated with desiring more touch, using touch for sexual reasons, using touch for caregiving or careseeking reasons, or feeling nurtured, protective, or negative during cuddling experiences.

Discussion

Our results document a wealth of information about the association between attachment and touch in adult romantic relationships. We found that avoidant individuals desire more touch, find touch to be aversive, use touch to control their partners, and feel negative during cuddling experiences. In many ways, these results are consistent with prior research. We would expect that avoidant individuals would be averse to touch (and thus feel negative during touch experiences) and would use touch to control their partners, based on previous research that avoidant individuals find touch to be aversive and tend to use sex as a way of controlling their partners (Brennan et al., 1998a; Davis & Shaver, 2004). What is more surprising is the finding that avoidant individuals desire more touch in their relationships. Perhaps avoidant individuals, so distanced from their relationship partners, are not receiving the amount of affection they would like to have in their relationships. It may also be that avoidant individuals, often

ambivalent toward relationship partners (Brennan & Shaver, 1995), are also ambivalent about the amount of touch they would like in their relationships, which causes them to be averse to touch and desire more touch at the same time.

Our results also show that anxious individuals desire more touch, use touch to gain or provide emotional closeness or affection, use touch for sexual reasons, use touch to control their partners, and use touch for caregiving and careseeking reasons. These results are consistent with previous research demonstrating that anxious individuals tend to be clingy and highly dependent upon their relationship partners (Brennan & Shaver, 1995; Hazan & Shaver, 1987). However, some of the touch attitudes that anxious individuals display are positive (e.g., using touch to show or gain affection and using touch for caregiving or careseeking reasons). Perhaps anxiously attached individuals display both adaptive and maladaptive relationship and touch attitudes, which may also lead to positive relationship outcomes.

Our findings are consistent with previous attachment literature that suggests that attachment styles are related to relationship outcomes in theoretically predictable ways. We found that avoidant individuals were less satisfied with their romantic relationships, and less invested in and committed to them. Avoidant individuals were also more likely to believe that they have more desirable alternatives to their current relationships. These findings are consistent with previous research, which suggests that avoidant individuals prefer to remain emotionally distant from their relationship partners (e.g., Brennan & Shaver, 1995). Our results also show that anxious individuals are invested in and committed to their relationships. This finding may reflect previous research showing that anxious individuals tend to be overly dependent on their relationship partners and fear abandonment in romantic relationships (Bartholomew, 1990;

Hazan & Shaver, 1987), or it may suggest that anxious attachment is also related to positive relationship outcomes.

Finally, our results display relations among relationship satisfaction, perception of relationship alternatives, relationship investment, relationship commitment, and touch. We found that relationship satisfaction and relationship commitment were positively correlated with positive aspects of touch and cuddling (e.g., using touch to gain or show affection, feeling nurtured, protective, and positive during cuddling, and enjoying cuddling). We also found that perception of relationship alternatives was positively correlated with more negative aspects of touch and cuddling (e.g., aversion to touch and using touch to control partners). These results suggest that relationship satisfaction, commitment, investment, and perception of alternatives are related in theoretically predictable ways to touch and cuddling within romantic relationships. Together with our previous findings, these results display the interrelationships between our three main constructs of interest: attachment, touch, and the relationship measures.

Overall, the following hypotheses were supported: avoidant individuals used touch to control their partners, did not use touch for caregiving and careseeking reasons, were less invested in their relationships, were less satisfied with their relationships, and felt more negatively during cuddling experiences. Anxious individuals desired more touch, used touch to gain or provide emotional closeness and affection, were more invested in their relationships, and felt more negatively during cuddling experiences. Our hypothesis that anxious individuals would report low relationship satisfaction was not supported, perhaps providing further evidence for the claim that anxious attachment may not be associated exclusively with negative relationship outcomes.

Securely attached individuals are those who are low on both anxiety and avoidance. Thus, effects for attachment security are those that are observed for both attachment anxiety and avoidance. The following hypothesis was supported for securely attached individuals: they were less likely to desire more touch in their relationships, implying that they are satisfied with the amount of touch they are experiencing.

The way individuals react to touch in their romantic relationships may influence their behavior in these relationships. Avoidant individuals, who seem to dislike touch experiences and seem to be generally unhappy in their current relationships, are probably not as likely to touch their partners (or accept touch from their partners), which may lead to negative relationship outcomes. Anxious individuals generally appear to use touch in positive ways and are committed to their relationships. However, they also seem to be unhappy during touch experiences and are unsatisfied with the amount of touch they are experiencing. This suggests that anxious individuals may behave in ways that will facilitate their relationships (e.g., showing affection to their partners), but which may be harmful to them individually if their desires for closeness are not reciprocated. Securely attached individuals seem to be confident with the amount of touch in their relationships, and tend not to use touch for negative reasons (e.g., controlling their partners). It is likely that securely attached individuals are confident about their relationships in general.

Our study has a number of strengths. First, this study consisted of an adult sample more diverse than what is normally found in college-student samples. Our mean ages for men and women were well above the typical college age. This is significant because it allows us to apply the conclusions from our data to multiple different age groups, and we are not limited to applying our findings only to college-aged populations. Second, our sample was relatively

diverse with respect to sexual orientation. In general, our findings suggested that sexual orientation was not related to our touch and cuddling measures, although future research should examine this question more thoroughly. Finally, our study is unique because it is the first to examine cuddling behaviors specifically, as opposed to just general touch attitudes. Our analysis of cuddling allows us to draw conclusions based on a type of touch specific to close relationships rather than on a vague concept of touch.

Of course, this study also has some limitations, which could be addressed in future research. The first limitation of this study is that we did not measure the frequency of participants' cuddling. Because we did not have a measure of how often individuals cuddle, we cannot determine whether anxious and avoidant individuals cuddle less often, or whether higher frequency of cuddling leads to better relationship outcomes. What we can determine is that avoidant attachment is related to more negative views about touch and cuddling, as well as more negative views about current romantic relationships. Similarly, our cuddling questionnaire did not comprehensively assess individuals' feelings about their cuddling experiences. Though our results were consistent with our hypotheses, future studies would benefit from a more comprehensive cuddling measure.

A second limitation of this study is that participants were asked about past cuddling experiences. Thus, participants relied on memory when answering questions about cuddling, which may not be completely accurate. In future studies, it would be beneficial to conduct a study that instructs individuals to engage in cuddling activities and records their attitudes before and after. A similar limitation of the study design is that this study is cross-sectional, so we cannot determine the direction of causality among the variables we measured. Longitudinal research would allow us to examine changes in touch attitudes and behaviors over time. A future

study would benefit from multiple assessments in order to determine whether touch attitudes, relationship variables, and feelings during cuddling are stable over time.

Because touch has such important implications in child development (e.g., Casler, 1965; Feldman et al., 2002; Polan & Ward, 1994 ; Spitz & Wolf, 1946; Tracy & Ainsworth, 1981), and because we have shown that attachment orientations determine attitudes toward touch in relationships, it would be beneficial if this study were carried out in the context of parent-child relationships. It is likely that the results would be similar, but in parent-child relationships the outcome could be perhaps more important: children of parents who are unwilling to engage in touch may develop insecure attachment orientations, which they will likely carry on to their adult relationships.

This study contributes to the literature on adult attachment, particularly regarding the association between attachment and touch in romantic relationships. Touch is associated with a number of positive outcomes in various domains, including health and child development, and our results reinforce the idea that touch is also important for the development and maintenance of romantic relationships. We have shown that attachment is associated with the amount of touch and attitudes toward touch that individuals experience in their romantic relationships, which in turn may lead to positive or negative outcomes. We hope that in the future these results may be extended and further examined across different relationship types.

References

- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of Attachment: A Psychological Study of the Strange Situation*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships*, 7(2), 147-178.
- Bell, R. A., Daly, J. A., & Gonzalez, M. C. (1987). Affinity-maintenance in marriage and its relationship to women's marital satisfaction. *Journal of Marriage and Family*, 49(2), 445-454.
- Bowlby, J. (1982). *Attachment* (2nd ed.). New York, NY: Basic Books.
- Brennan, K. A., & Shaver, P. R. (1995). Dimensions of adult attachment, affect regulation, and romantic relationships functioning. *Personality and Social Psychology Bulletin*, 21(3), 267-283.
- Brennan, K. A., Clark, C. L., Shaver, P. R. (1998a). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment Theory and Close Relationships* (pp. 46-76). New York, NY: Guilford.
- Brennan, K. A., Wu, S., & Loev, J. (1998b). Adult romantic attachment and individual differences in attitudes toward physical contact in the context of adult romantic relationships. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment Theory and Close Relationships* (pp. 394-428). New York, NY: Guilford.
- Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of conflict and support in romantic relationships: The role of attachment anxiety. *Journal of Personality and Social Psychology*, 88(3), 510-531.

- Casler, L. (1965). The effects of extra tactile stimulation on a group of institutionalized infants. *Genetic Psychological Monographs, 71*, 137-175.
- Davis, D., Shaver, P. R., & Vernon, M. L. (2004). Attachment style and subjective motivations for sex. *Personality and Social Psychology Bulletin, 30*(8), 1076-1090.
- Ditzen, B., Neumann, I., Bodenmann, G., von Dawans, B., Turner, R. A., Ehlert, U., & Heinrichs, M. (2007). Effects of different kinds of couple interaction on cortisol and heart rate responses to stress in women. *Psychoneuroendocrinology, 32*, 565–574.
- Drescher, V. M., Whitehead, W. E., Morrill-Corbin, E. D., & Cataldo, M. F. (1985). Physiological and subjective reactions to being touched. *Psychophysiology, 22*(1), 96-100.
- Edelstein, R. S., Alexander, K. W., Shaver, P. R., Schaaf, J. M., Quas, J. A., Lovas, G. S., & Goodman, G. S. (2004). Adult attachment style and parental responsiveness during a stressful event. *Attachment and Human Development, 6*(1), 31-52.
- Feeney, J.A. (2008). Adult romantic attachment: Developments in the study of couple relationships. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 456-481). New York, NY: Guilford.
- Feldman, R., Weller, A., Sirota, L., & Eidelman, A.I. (2002). Skin-to-skin contact (kangaroo care) promotes self-regulation in premature infants: Sleep-wake cyclicity, arousal modulation, and sustained exploration. *Developmental Psychology, 38*(2), 194-207.
- Fisher, J. D., Rytting, M., & Heslin, R. (1976). Hands touching hands: Affective and evaluative effects of an interpersonal touch. *Sociometry, 39*, 416-421.
- Fishman, E., Turkheimer, E., & DeGood, D.E. (1995). Touch relieves stress and pain. *Journal of Behavioral Medicine, 18*(1), 69-79.

- Fraley, R. C., Waller, N. (1998). Adult attachment patterns: A test of the typological model. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 77-114). New York, NY: Guilford.
- Fromme, D. K., Jaynes, W. E., Taylor, D. K., Hanold, E. G., Daniell, J., Rountree, J. R., & Fromme, Marie L. (1989). Nonverbal behavior and attitudes toward touch. *Journal of Nonverbal Behavior, 13*(1), 3-14.
- Gallace, A., & Spence, C. (2010). The science of interpersonal touch: An overview. *Neuroscience and Biobehavioral Reviews, 34*, 246-259.
- Gentzler, A. L., & Kerns, K. A. (2004). Associations between insecure attachment and sexual experiences. *Personal Relationships, 11*(2), 249-265.
- Grewen, K.M., Anderson, B.J., Girdler, S.S., & Light, K.C. (2003). Warm partner contact is related to lower cardiovascular reactivity. *Behavioral Medicine, 29*(3), 123–130.
- Guerrero, L. K., & Bachman, G. F. (2006). Associations among relational maintenance behaviors, attachment-style categories, and attachment dimensions. *Communication Studies, 57*(3), 341-361.
- Gulledge, A. K., Gulledge, M. H., & Stahmann, R. F. (2003). Romantic physical affection types and relationship satisfaction. *American Journal of Family Therapy, 31*(4), 233-242.
- Gulledge, A. K., Hill, M., Lister, Z., & Sallion, C. (2007). Non-erotic physical affection: It's good for you. In L. L'Abate (Ed.), *Low-cost approaches to promote physical and mental health: Theory, research, and practice* (pp. 371-383). New York, NY: Springer.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*(3), 511-524.

- Johnson, K. L., & Edwards, R. (1991). The effects of gender and type of romantic touch on perceptions of relational commitment. *Journal of Nonverbal Behavior, 15*(1), 43-55.
- Kunce, L. J., & Shaver, P. R. (1994). An attachment-theoretical approach to caregiving in romantic relationships. In K. Bartholomew & D. Perlman (Eds.), *Attachment Processes in Adulthood* (pp. 205-237). London, England: Jessica Kingsley Publishers.
- Mikulincer, M., & Shaver, P. R. (2007). *Attachment in Adulthood: Structure, Dynamics, and Change*. New York, NY: Guilford Press.
- Olson, M., & Sneed, N. (1995). Anxiety and therapeutic touch. *Issues in Mental Health Nursing, 16*, 97-108.
- Pisano, M. D., Wall, S. M., & Foster, A. (1986). Perceptions of nonreciprocal touch in romantic relationships. *Journal of Nonverbal Behavior, 10*(1), 29-40.
- Polan, H. J., & Ward, M. J. (1994). Role of the mother's touch in failure to thrive: A preliminary investigation. *Journal of the American Academy of Child and Adolescent Psychiatry, 33*(8), 1098-1105.
- Rusbult, Caryl E., Martz, John M., & Agnew, Christopher R. (1998). The Investment Model Scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships, 5*(4), 357-391.
- Shermer, M., 2004. A bounty of science. *Scientific American, 290* (2), 33.
- Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology, 59*(5), 971-980.
- Simpson, J. A., Rholes, W. S., & Nelligan, J. S. (1992). Support seeking and support giving within couples in an anxiety-provoking situation: The role of attachment styles. *Journal of Personality and Social Psychology, 62*(3), 434-446.

- Spangler, G., & Grossmann, K. E. (1993). Biobehavioral organization in securely and insecurely attached infants. *Child Development, 64*(5), 1439–1450.
- Spitz, R., & Wolf, K. (1946). Anaclitic depression: An inquiry into the genesis of psychiatric conditions in early childhood. *Psychoanalytic Study of the Child, 2*, 313-342.
- Tracy, R. L., & Ainsworth, M. S. (1981). Maternal affectionate behavior and infant-mother attachment patterns. *Child Development, 52*(4), 1341-1343.
- Tucker, J. S., & Anders, S. L. (1998). Adult attachment style and nonverbal closeness in dating couples. *Journal of Nonverbal Behavior, 22*(2), 109-124.
- van Anders, S. M., Edelstein, R. S., Wade, R. L., & Samples-Steele, C. R. (2011). Cuddling between adult romantic partners involves both sexual and nurturant intimacy. *Manuscript submitted for publication.*

Footnotes

¹ One item (number 51) was inadvertently left out of our version of this scale. Our analyses of the Desires More Touch subscale therefore consist of 7 items.

² Because the internal consistency of this subscale was so low, we did not include it in our analyses.

Author Note

Chelsea R. Samples-Steele, Department of Psychology, University of Michigan, Ann Arbor.

Thank you, first of all, to Dr. Robin Edelstein, for her patience, helpfulness, intelligence, and kindness. She is, and will continue to be, an excellent mentor and role model. Second, thank you to Dr. Sari van Anders for her generosity in allowing me to use this data and to be a part of this project. Third, thank you to Emily Shipman, Bill Chopik, and the rest of the members of Robin's lab, for collaboration, suggestions, and encouragement. I have been blessed to make such excellent connections over these last three years. Thank you, finally, to my mom, who deserves more praise than I can put into words.

Table 1

Relations Between the Attachment Dimensions, Demographic Variables, Touch Scales, Relationship Variables, and Cuddling Variables

	Avoidance		Anxiety		Age		Gender		Sexual Orientation	
	<i>r</i>	β	<i>r</i>	β	<i>r</i>	β	<i>r</i>	β	<i>r</i>	β
Touch Scales										
Desires More Touch	.31**	.17**	.40**	.41**	.10	.10	.22**	.27**	.05	.05
Affectionate Proximity	-.33**	-.41**	.23**	.31**	-.22**	-.12*	-.25**	-.14*	.11	.06
Sexual Touch	-.19**	-.24**	.07	.16*	-.03	-.004	.06	.10	-.01	-.02
Touch Aversion	.54**	.50**	.23**	.10	.05	.03	.13*	.13*	-.07	-.04
Coercive Control	.46**	.41**	.27**	.15*	-.08	-.08	.03	.07	-.05	-.03
Safe Haven Touch	-.10	-.19**	.26**	.31**	-.07	-.01	-.10	-.03	.08	.04
Relationship Measures										
Relationship Satisfaction	-.42**	-.41**	-.13*	-.03	-.18**	-.16**	-.08	-.01	.04	.04
Perception of Alternatives	.37**	.35**	.11	.03	.07	-.01	.22**	.23**	.08	.13*
Relationship Investment	-.45**	-.55**	.07	.26**	-.06	-.03	.09	.17**	.02	-.004
Commitment	-.49**	-.53**	-.01	.16**	-.02	.05	-.11	-.08	.06	.01
Feelings During Cuddling										
Feel Nurtured	-.15*	-.15*	.11	.09	-.24**	-.14*	-.35**	-.29**	.03	-.01
Feel Protective	-.13*	-.17*	.05	.10	-.01	.02	-.02	.01	.05	.03
Enjoy Cuddling	-.33**	-.32**	.02	.07	-.13*	-.08	-.25**	-.20**	.16**	.13*
Feel Positive	-.32**	-.31**	-.04	.02	-.15*	-.11	-.14*	-.08	.06	.04
Feel Negative	.30**	.25**	.17**	.12	.04	.04	.06	.06	-.03	-.02

Note. Betas (β) are from regressions with avoidance, anxiety, age, gender, and sexual orientation as predictors. Gender: 0 = women, 1 = men; Sexual orientation: 0 = heterosexual, 1 = LGBTQ; * $p \leq .05$, ** $p \leq .01$.

Table 2

Relations Between the Relationship Variables, Touch Scales, and Cuddling Variables

	Relationship Satisfaction		Perception of Alternatives		Relationship Investment		Relationship Commitment	
	<i>r</i>	β	<i>r</i>	β	<i>r</i>	β	<i>r</i>	β
Touch Scales								
Desires More Touch	-.37**	-.51**	.43**	.38**	.04	.42**	-.25**	.03
Affectionate Proximity	.49**	.32**	-.15*	.11	.39**	.08	.44**	.24**
Sexual Touch	.35**	.30**	.04	.23**	.26**	.06	.24**	.13
Touch Aversion	-.23**	-.05	.43**	.26**	-.04	.32**	-.40**	-.42**
Coercive Control	-.13*	.12	.41**	.23**	-.02	.31**	-.40**	-.54**
Safe Haven Touch	.24**	.12	.01	.13	.31**	.26**	.19**	.02
Feelings During Cuddling								
Feel Nurtured	.46**	.43**	-.27**	-.12	.25**	-.05	.35**	.02
Feel Protective	.29**	.28**	-.09	-.03	.24**	.16	.15*	-.15
Enjoy Cuddling	.46**	.39**	-.18**	.07	.25**	-.12	.40**	.26**
Feel Positive	.57**	.54**	-.22**	.03	.31**	-.11	.44**	.17*
Feel Negative	-.33**	-.33**	.24**	.11	-.10	.22**	-.28**	-.13

Note. Betas (β) are from regressions with the relationship variables as predictors. * $p \leq .05$, ** $p \leq .01$.

Appendix A

Experiences in Close Relationships

The following statements concern how you feel in romantic relationships. We are interested in how you *generally* experience close relationships, not just in what is happening in your current relationship. Respond to each statement by indicating how much you agree or disagree with it. Write the number in the space provided, using the following rating scale (be sure to use the entire range of the scale, if it is applicable to you):

Disagree strongly	Neutral/mixed				Agree
strongly					
1	2	3	4	5	6
7					

- | | | |
|-------|-----|---|
| _____ | 1. | I prefer not to show a partner how I feel deep down. |
| _____ | 2. | I worry about being abandoned. |
| _____ | 3. | I am very comfortable being close to romantic partners. |
| _____ | 4. | I worry a lot about my relationships. |
| _____ | 5. | Just when my partner starts to get close to me I find myself pulling away. |
| _____ | 6. | I worry that romantic partners won't care about me as much as I care about them. |
| _____ | 7. | I get uncomfortable when a romantic partner wants to be very close. |
| _____ | 8. | I worry a fair amount about losing my partner. |
| _____ | 9. | I don't feel comfortable opening up to romantic partners. |
| _____ | 10. | I often wish that my partner's feelings for me were as strong as my feelings for him/her. |
| _____ | 11. | I want to get close to my partner, but I keep pulling back. |
| _____ | 12. | I often want to merge completely with romantic partners, and this sometimes scares them away. |
| _____ | 13. | I am nervous when partners get too close to me. |
| _____ | 14. | I worry about being alone. |
| _____ | 15. | I feel comfortable sharing my private thoughts and feelings with my partner. |
| _____ | 16. | My desire to be very close sometimes scares people away. |
| _____ | 17. | I try to avoid getting too close to my partner. |
| _____ | 18. | I need a lot of reassurance that I am loved by my partner. |
| _____ | 19. | I find it relatively easy to get close to my partner. |
| _____ | 20. | Sometimes I feel that I force my partners to show more feeling, more commitment. |
| _____ | 21. | I find it difficult to allow myself to depend on romantic partners. |
| _____ | 22. | I do not often worry about being abandoned. |
| _____ | 23. | I prefer not to be too close to romantic partners. |
| _____ | 24. | If I can't get my partner to show interest in me, I get upset or angry. |
| _____ | 25. | I tell my partner just about everything. |
| _____ | 26. | I find that my partner(s) don't want to get as close as I would like. |
| _____ | 27. | I usually discuss my problems and concerns with my partner. |
| _____ | 28. | When I'm not involved in a relationship, I feel somewhat anxious and insecure. |

- _____ 29. I feel comfortable depending on romantic partners.
- _____ 30. I get frustrated when my partner is not around as much as I would like.
- _____ 31. I don't mind asking romantic partners for comfort, advice, or help.
- _____ 32. I get frustrated if romantic partners are not available when I need them.
- _____ 33. It helps to turn to my romantic partner in times of need.
- _____ 34. When romantic partners disapprove of me, I feel really bad about myself.
- _____ 35. I turn to my partner for many things, including comfort and reassurance.
- _____ 36. I resent it when my partner spends time away from me.

Appendix B

Feelings About Touch Scale

Please respond to each statement by indicating how well it describes you. Write the number in the space provided, using the following rating scale (be sure to use the entire range of the scale, if it is applicable to you):

Not at all like me	Neutral/Mixed					Very much like me	
1	2	3	4	5	6	7	
_____	1.	I wish my partner were as receptive to my touch as I am to his or her touch					
_____	2.	Sometimes, for no particular reason, I love to just hold my partner					
_____	3.	I usually become sexually aroused when touching my partner					
_____	4.	My partner continually complains that I don't touch him or her enough					
_____	5.	When I'm not feeling well, I really need to be touched by my partner					
_____	6.	I use touch to convey my hostility or resentment toward my partner					
_____	7.	My partner and I don't feel inhibited touching each other in front of others					
_____	8.	Sometimes I wish my partner were more comfortable with being touched by me					
_____	9.	I wish my partner would just hold me for hours					
_____	10.	I usually become sexually aroused when my partner touches me					
_____	11.	I often have to remind my partner to stop touching me					
_____	12.	When I'm distressed or ill, I prefer not to be touched by my partner					
_____	13.	I often touch my partner to assert my feelings of control					
_____	14.	I don't think that displays of physical affection are appropriate in public					
_____	15.	Sometimes I am not very happy with the level of touch in my relationship					
_____	16.	I like my partner to hold my hand to demonstrate his or her affection for me					
_____	17.	My partner's touch almost always makes me feel aroused					
_____	18.	I generally don't like my partner to touch me					
_____	19.	Even when angry with my partner, I still want to be touched by him or her					
_____	20.	Sometimes the only way I can express negative feelings toward my partner is by using touch to get attention					
_____	21.	I like touching and being touched by my partner, especially when others are around to see.					
_____	22.	Even in private, I can't get my partner to touch me enough					
_____	23.	I like to hold my partner's hand to demonstrate affection for him or her					
_____	24.	Most of the time I find being touched by my partner very arousing					
_____	25.	My partner often complains that I don't touch him or her enough					
_____	26.	I avoid touching my partner when he or she is distressed or ill					
_____	27.	When I'm angry with my partner, I sometimes feel like hitting him or her					
_____	28.	It feels very natural for my partner and I to touch each other, even when others					

are around

- _____ 29. Sometimes my partner goes out of the way to avoid being touched by me
- _____ 30. After a sexual interaction, I really enjoy being held by my partner
- _____ 31. Just being touched by my partner is usually enough to arouse me sexually
- _____ 32. I am not always sure when I want my partner to touch me
- _____ 33. When I'm upset with my partner, I still need physical reassurance from him or her
- _____ 34. Often without thinking first, I have slapped or hit my partner when we disagreed
- _____ 35. I think it is embarrassing when my partner touches me in public
- _____ 36. I sometimes wish my partner would touch me more
- _____ 37. If my partner were willing, I could just caress him or her for hours on end
- _____ 38. I use touch as a means to initiate sexual interaction with my partner
- _____ 39. I am always glad to have my partner touch me
- _____ 40. When I am facing a difficult situation, I like being touched by my partner
- _____ 41. My partner often touches me to assert his or her feelings of control
- _____ 42. I sometimes find my partner's touch intolerable
- _____ 43. It makes me sad that my partner won't or can't touch me the way I'd like to be touched
- _____ 44. My partner's touch makes me feel loved
- _____ 45. My partner uses touch as a means to initiate sexual closeness with me
- _____ 46. Sometimes I find my partner's touch really annoying
- _____ 47. When my partner is feeling under the weather, my first reaction is to touch him or her
- _____ 48. I usually hug my partner to show how happy I am to see him or her
- _____ 49. If my partner and I have been apart, it often takes me awhile to get used to his or her touch
- _____ 50. I often touch my partner as a way to express my feelings for him or her
- _____ 51. I have considered ending my relationship because of my partner's discomfort with touching and being touched

Appendix C

Perceptions of My Relationship (Investment Model Scale)

The following items ask you about your current relationship. Please indicate the degree to which you agree with each of the following statements. Write the number in the space provided, using the following rating scale (be sure to use the entire range of the scale, if it is applicable to you):

Don't Agree At All	1	2	3	4	Agree Somewhat	5	6	7	8	Agree Completely	9
_____	1.	My partner fulfills my needs for intimacy (sharing personal thoughts, secrets, etc.)									
_____	2.	My partner fulfills my needs for companionship (doing things together, enjoying each other's company, etc.)									
_____	3.	My partner fulfills my sexual needs (holding hands, kissing, etc.)									
_____	4.	My partner fulfills my needs for security (feeling trusting, comfortable in a stable relationship, etc.)									
_____	5.	My partner fulfills my needs for emotional involvement (feeling emotionally attached, feeling good when another feels good, etc.)									
_____	6.	I feel satisfied with our relationship									
_____	7.	My relationship is much better than others' relationships									
_____	8.	My relationship is close to ideal									
_____	9.	Our relationship makes me very happy									
_____	10.	Our relationship does a good job of fulfilling my needs for intimacy, companionship, etc.									
_____	11.	My needs for intimacy (sharing personal thoughts, secrets, etc.) could be fulfilled in alternative relationships (e.g., by another dating partner, friends, family)									
_____	12.	My needs for companionship (doing things together, enjoying each other's company, etc.) could be fulfilled in alternative relationships (e.g., by another dating partner, friends, family)									
_____	13.	My sexual needs (holding hands, kissing, etc.) could be fulfilled in alternative relationships (e.g., by another dating partner, friends, family)									
_____	14.	My needs for security (feeling trusting, comfortable in a stable relationship, etc.) could be fulfilled in alternative relationships (e.g., by another dating partner, friends, family)									
_____	15.	My needs for emotional involvement (feeling emotionally attached, feeling good when another feels good, etc.) could be fulfilled in alternative relationships (e.g., by another dating partner, friends, family)									

- _____ 16. The people other than my partner with whom I might become involved are very appealing
- _____ 17. My alternatives to our relationship are close to ideal (dating another, spending time with friends or on my own, etc.)
- _____ 18. If I weren't dating my partner, I would be fine—I would find another appealing person to date
- _____ 19. My alternatives are attractive to me (dating another, spending time with friends or on my own, etc.)
- _____ 20. My needs for intimacy, companionship, etc., could easily be fulfilled in an alternative relationship
- _____ 21. I have invested a great deal of time in our relationship
- _____ 22. I have told my partner many private things about myself (I disclose secrets to him/her)
- _____ 23. My partner and I have an intellectual life together that would be difficult to replace
- _____ 24. My sense of personal identity (who I am) is linked to my partner and our relationship
- _____ 25. My partner and I share many memories
- _____ 26. I have put a great deal into our relationship that I would lose if the relationship were to end.
- _____ 27. Many aspects of my life have become linked to my partner (recreational activities, etc.), and I would lose all of this if we were to break up.
- _____ 28. I feel very involved in our relationship—like I have put a great deal into it
- _____ 29. My relationships with friends and family members would be complicated if my partner and I were to break up (e.g., my partner is friends with people I care about)
- _____ 30. Compared to other people I know, I have invested a great deal in my relationship with my partner
- _____ 31. I want our relationship to last for a very long time
- _____ 32. I am committed to maintaining my relationship with my partner
- _____ 33. I would not feel very upset if our relationship were to end in the near future
- _____ 34. It is likely that I will date someone other than my partner within the next year
- _____ 35. I feel very attached to our relationship—very strongly linked to my partner
- _____ 36. I want our relationship to last forever
- _____ 37. I am oriented toward the long-term future of my relationship (for example, I imagine being with my partner several years from now)