Attachment Security and the Strength of Commercial Relationships: A Longitudinal Study

Marcel Paulssen and Susan Fournier

Marcel Paulssen
Assistant Professor of Industrial Marketing Management
Department of Business Administration
Humboldt University Berlin
Spandauer Str. 1, 10178 Berlin
phone: +49 30 2093 5954
fax: +49 30 2093 5955
E-mail: paulssen@wiwi.hu-berlin.de

Susan Fournier
Associate Professor of Marketing
Boston University School of Management
phone: 617.353.2773
E-mail: fournism@bu.edu

The authors thank the management of an anonymous consumer products manufacturer for funding and subject access in this study.
Attachment Security and the Strength of Commercial Relationships: A Longitudinal Study

This research applies attachment theory to a pivotal question in relationship marketing: Which consumers have a propensity to build strong relationships with companies/brands, and why? Using data from a longitudinal field study in the automotive services category, we first show that secure personal attachment drives stronger commercial relationships, as measured by dealer trust, satisfaction, and loyalty. Building upon recent theory supporting domain-specific instantiations of generalized attachment orientations, we then provide evidence of improved diagnostic and predictive value from an attachment construct specific to the commercial (versus personal) relationship context. Two dimensions of secure consumer attachment—embrace of vulnerability and drive for closeness—are empirically derived; these facets drive different relationship marketing responses. The effects of secure consumer attachment are persistent over time, and manifest despite controls for other traits known to drive relationship behaviors. Our result patterns parallel those found in interpersonal relationship settings and support the application and extension of attachment theory in marketing. The research offers further validation of the contention that commercial relationships behave in similar ways to personal relationships, thereby reinforcing the legitimacy of inquiries that seek to develop relationship theories in consumer marketing research.
Introduction

Relationship marketing, with its attendant goals for the establishment and maintenance of long-term buyer-seller relationships, serves as a guiding philosophy for marketing theory and practice (Reinartz & Kumar, 2003; Sheth & Parvatiyar, 1995). Still, research confirms that not all consumers successfully maintain or even desire relationships with companies or their employees and brands (Bendapudi & Berry 1997; Fournier, Dobscha & Mick, 1998; Odekerken-Schröder, De Wulf & Schumacher, 2003). Further, the types of relationships sought and the depth of their engagement has been shown to vary across individuals (Aggarwal, 2004; Aggarwal & Law, 2005; Fournier, 1998; Price & Arnould, 1999). Realization of the full potential of relationship marketing thus hinges, at least partly, on an effective means by which consumers can be identified according to their relationship propensities (Dowling & Uncles, 1997). Unfortunately, approaches for segmenting customers on the basis of their relationship styles are lacking (Bendapudi & Berry, 1997). Research by Fournier (1998) and Christy, Oliver and Penn (1996) suggests that some customers might be psychologically predisposed to form relationships with companies and brands, and recent empirical research has demonstrated the impact of relationship proneness on consumer behavior (DeWulf, Odekerken-Schroeder, & Iacobucci, 2001; Odekerken-Schroeder, DeWulf, & Schumacher, 2003). The present study further explores individual differences in the commercial relationship arena and uses attachment theory to inform the basic question: Which consumers are most likely to build strong relationships with companies/brands, and why?

Social psychological theories of attachment offer promise in qualifying a person’s propensity for becoming a valued customer of the firm. Attachment theory has demonstrated, through literally thousands of effect studies in psychology over the past thirty years, an impressive ability to explain individual differences in the nature, strength, and quality of person-to-person relationships (Mikulincer & Shaver, 2003). Recent empirical works in marketing suggest that attachment theory may also contribute to our understanding of business-to-consumer relationships (Thomson & Johnson, 2002, 2006). Results, however, have been inconclusive: both positive (Thomson & Johnson, 2002) and negative (Thomson & Johnson, 2006) influences of specific attachment orientations on satisfaction in service relationships have been identified. Sampling and study design issues confound results, leading Thomson and Johnson (2006) to call for the validation of attachment style effects in a more comprehensive and natural commercial setting.

The present research offers a sound empirical test of the impact of personal attachment on a range of commercial relationship quality indicators, thereby addressing whether an individual’s personal attachment orientation, as exhibited in adult relations, affects the strength of his/her relationships with the service providers that deliver a company’s brand. In addition, we extend attachment theory into the consumption realm by (a) developing and validating a measure of secure attachment as might manifest specifically in commercial versus personal relationships, and (b) assessing the incremental impact and diagnosticity of secure consumer attachment on a range of commercial relationship quality indicators. Our research explores attachment effects both cross-sectionally and longitudinally within a real-world consumption setting, thus providing a rigorous test of the case for attachment theory in consumer marketing research.

Theoretical Background on Attachment Theory

Attachment theory, the joint work of psychoanalyst John Bowlby and cognitive psychologist Mary Ainsworth, concerns the dispositions and propensities adopted by individuals in their development of affectional bonds with particular others (Ainsworth, 1967, 1991; Ainsworth et al., 1978; Bowlby, 1982/1969). The main tenet of attachment theory is that an individual’s unique history of interpersonal experiences with close relationship partners shapes not only how that individual thinks and feels about his/her relationships generally and what is expected from them, but also how that individual behaves in those relationships (Collins et al., 2006). Attachment theorists refer to the cognitive-affective representations of relationship experiences as internal working models of attachment. Per Bowlby (1973) and others (Collins et al., 2006; Shaver, Collins, & Clark, 1996), these working models are chronically
accessible prototypes of the relational self and the relational other that evolve through interactions with attachment figures (e.g. mother, father, romantic partner). The working model of self concerns beliefs about whether one is competent and worthy of the love, support, and care of others; the working model of others concerns beliefs regarding whether or not attachment figures will be available, responsive, and trustworthy in fulfilling interpersonal needs (Gallo & Smith, 2001). Working models of attachment are thought to operate largely outside awareness in top-down processes that shape perception, emotion, and behavior in attachment-relevant contexts (Collins et al., 2006).

Ainsworth (1967, 1991) developed the individual differences side of the attachment story, and was the first to delineate different attachment orientations—secure, anxious, ambivalent, avoidant—that emerged from interactions between children and their caregivers. Hazan and Shaver (1987) translated Ainsworth’s attachment orientations to adult relationships, thereby opening a new field of attachment research that has since received considerable attention. Recent theorists argue that attachment orientations are best conceptualized not as strict categories or types but rather as dimensions in a continuous two-dimensional space created by the operation of working models of the self and the relationship other (Brennan, Clark, & Shaver, 1998; Fraley & Waller, 1998; Simpson, 1990; Shaver & Mikulincer, 2002a). The secure-insecure distinction plays a prominent role in attachment theory and research and is, according to Ainsworth et al. (1978, p. 298), “the most conspicuous dimension” in attachment orientations.

The majority of individuals can be considered securely attached (i.e., they would score moderate to high on measures of secure attachment) and possess what Waters, Rodriguez and Ridgeway (1998) call the secure base script. Due to positive expectations about others’ availability in threatening situations (i.e., a positive working model of other) and positive views of the self as competent, loved and valued (i.e., a positive working model of self), the secure base script consists among other things of increased confidence in the proximity and support of attachment figures. Securely-attached individuals thus find it easy to get close to relationship partners, and feel comfortable developing trust in and dependency on them (Hazan & Shaver, 1987). The personal relationships of securely attached individuals are consistently characterized by high levels of intimacy, commitment, satisfaction, and stability over time (Collins & Read, 1990; Kirkpatrick & Hazan, 1994; Simpson, 1990).

The quality of interactions with attachment figures is not, however, always uniformly positive (Shaver & Mikulincer, 2005). The presence or expectation of unavailable and unresponsive attachment figures in times of need induces insecure attachment orientations (i.e., lower scores on measures of secure attachment), which earlier researchers would classify as either anxious or avoidant. This secondary attachment strategy (Main, 1990) carries with it negative judgments of relationship others which can interfere with a whole range of life activities, most important among them relationship functioning behaviors (Shaver & Mikulincer, 2003). The relationships of those with insecure attachment orientations are characterized by low levels of intimacy, trust, commitment, satisfaction, and interdependence, and instability over time (Collins & Read, 1990; Kirkpatrick & Hazan, 1994; Simpson, 1990).

The research history concerning the effects of adult attachment is impressive, comprising literally thousands of effect studies (for reviews, see Berlin & Cassidy, 1999; Mikulincer & Shaver, 2003; and Shaver, Collins, & Clark, 1996). Individual-level analyses consistently support that attachment security levels are associated with relationships that differ significantly in their qualitative nature and manifest effects.

In recent years, attachment theory has been successfully applied beyond the close romantic relationship setting to include relations with peers (Asendorpf & Wilpers, 2000; Trinke & Bartholomew, 1997), strangers (Berlin & Cassidy, 1999), workmates (Hazan & Shaver, 1990), and social institutions (Shaver & Mikulincer, 2003). Empirical investigations of attachment theory in consumer relationship settings (Thomson & Johnson, 2002, 2006) indicate the potential for personal attachment styles to explain differences in the strength and quality of business-to-consumer relationships as well.

### Conceptual Model and Hypotheses Development

The scope of successful attachment theoretic applications to date suggests promise for the manifestation of attachment effects in commercial relationships between consumers and their companies.
or brands. This sentiment is also reinforced by research showing that consumer-company and consumer-brand relationships can rely on the same psychological processes involved in dyadic personal relationships (Aaker, Fournier, & Brasel, 2004; Aggarwal, 2004; Aggarwal & Law, 2005; Aggarwal & Zhang, 2006; Fournier, 1998; Price & Arnould, 1999).

We focus our empirical efforts on secure attachment. This strategy builds from the above-cited research supporting secure attachment as the critical dimension defining primary and secondary attachment strategies. Our focus also builds on Crowell, Fraley, and Shaver’s (1999) finding that the majority of individuals possess either positive models of both self and relational others (and hence high scores on secure attachment) or negative models of both self and relational others (and hence low scores on secure attachment). Further, secure attachment provides a sensible focus for marketing decisions since consumers who score high (low) on secure attachment should yield strong (weak) relationship quality benefits. These same considerations led Thomson and Johnson (2006) to recommend concentration on secure attachment in future marketing research. Below we posit hypotheses concerning the effects of secure personal attachment on commercial relationships. We also introduce and consider the relative effectiveness of a domain-specific attachment construct designed expressly for the consumption realm: secure consumer attachment. Figure 1 summarizes our foundational hypotheses; discussion amplifies longitudinal effects outside the scope of this model.

Figure 1: How Attachment Affects the Strength of Commercial Relationships
Effects of Personal Attachment on the Strength of Commercial Relationships

Consistent findings concerning the positive influence of secure attachment across diverse personal relationship settings suggest parallel responses in commercial relationships. Building from the literature, the positive relationship predispositions of securely attached individuals should manifest in higher levels of trust, satisfaction, and loyalty in commercial relationships. Interpersonal studies of attachment effects on relationship quality have been correlational however, and neglect important interrelationships that might exist between these different relationship quality facets. In marketing research, the satisfaction→loyalty link has been supported across a variety of product and service industries (Fornell et al., 1996; Szymanski & Henard, 2001). Further, the positive relationship between trust and loyalty has been almost unanimously confirmed (Geyskens, Steenkamp, & Kumar, 1999; Morgan & Hunt, 1994). Marketing research has also documented the mediating roles of satisfaction (Szymanski & Henard, 2001) and trust (e.g. Morgan & Hunt, 1994) on loyalty. We anticipate similar effects on and mediating mechanisms for the impact of personal attachment on the quality of commercial relationships:

**H1a:** The more securely attached a consumer is in his/her personal relationships, the more trust s/he will possess in a given commercial relationship.

**H1b:** The more securely attached a consumer is in his/her personal relationships, the more satisfied s/he will be in a given commercial relationship.

**H1c:** The positive impact of secure personal attachment on loyalty in a given commercial relationship is mediated through trust and satisfaction.

Effects of Consumer Attachment on the Strength of Commercial Relationships

In Bowlby’s original conceptualization and in early empirical work, attachment is conceived as a general predisposition acquired in response to early relations with attachment figures that guides behaviors throughout a range of future personal relationships. Subsequent research, however, reveals that attachment demonstrates the same coherence failures across situations and time that plague the meta-theoretic trait perspective in psychology overall (c.f., Mischel, 1968). Relatively low correlations for attachment styles across different types of relationships (as with mothers or peers, for example) have been reported. Asendorpf and Wilpers (2000), Baldwin et al. (1996), and Crowell, Fraley, and Shaver (1999) report average across-relationship consistencies around .30 when the same methods were used to assess attachment templates, and .15 when different methods were used.

These findings have led attachment researchers to recommend the conceptualization of attachment as a relation-specific versus trait-theoretic construal (Collins & Read, 1994; Crittenden, 1990; Pierce & Lydon, 2001; Shaver & Mikulincer, 2003). A conceptual framing along these lines suggests that people possess distinct, domain-specific models of close relationships in addition to broader, more general or global relationship templates, and that attachment orientations may serve as properties of persons within a given relationship or relationship class, rather than of persons per se across relationship classes. Figure 2 depicts the hypothesized structure of attachment models and their evolution toward specificity in particular dyadic relationship settings. As noted by Collins and Read (1994), the higher the position of an attachment model in the hierarchy, the wider the range of situations to which it will fit and apply. These more general models present a trade-off, however, since they lose their ability to predict perceptions and behaviors in specific relationship situations. This same trend toward more predictive situation-specific models and measures has characterized much of the progress in personality research (Epstein & O’Brien, 1985).
Figure 2: A Hierarchical Network of Attachment Representations

General Model of Self and Others in Relation to Attachment

Model of Parent-Child Relationships
- Mother
- Father

Model of Romantic Relationships
- Mary/Peter
- Mary/David

Model of Commercial Relationships
- Brand A
- Brand B
Building on the insight that working models of attachment may possess both trait and relation-specific characteristics, we saw value in developing a mid-range attachment construct for the commercial relationship class. This operationalization thus extends attachment theory specifically into marketing research, and allows for distinct trait manifestations in commercial versus personal relationship settings. Our extension stands in contrast to typical consumer studies of personality effects, which accept psychological constructs more generally and probe for their circumscribed halo effects (see, for example, Aaker and Maheswaran’s 1997 study of individualism versus collectivism and its effects on advertising response). Our extension is in line with Kassarjian’s recommendations (Kassarjian, 1971; Kassarjian & Sheffet, 1991) for the operationalization of personality constructs tailored to the context of consumption. It is also in line with the recommendation of leading attachment researchers to develop different attachment measures for different relationship classes (Shaver & Mikulincer, 2002b).

In light of consistencies expected between consumer and personal attachment, we propose hypotheses for the effects of secure consumer attachment that parallel those stated for secure personal attachment. Further, we expect an equivalent mediating mechanism through both satisfaction and trust on loyalty for our new consumer attachment construct.

\[ H_2a \]: The more securely attached a customer is in his/her commercial relationships, the more trust s/he will possess in a given commercial relationship.

\[ H_2b \]: The more securely attached a customer is in his/her commercial relationships, the more satisfied s/he will be in a given commercial relationship.

\[ H_2c \]: The positive impact of secure consumer attachment on loyalty in a given commercial relationship is mediated through trust and satisfaction.

Our next hypothesis expands the range of consumer attachment effects beyond the trust, satisfaction, and loyalty responses typically investigated in relationship marketing. This hypothesis builds from findings in personal relationships research suggesting that securely attached individuals exhibit a predisposition toward more personal interactions and communications with others. Research shows that securely attached persons place a high value on the benefits of being intimate with others, and organize their social interactions around this search for intimacy (Mikulincer & Shaver, 2003). Further, securely attached individuals exhibit a communication style conducive to such interactions: one that is characterized by an ability and desire to engage in open and intimate communication with relationship others (Feeney, Noller, & Callan, 1994; Shaver, Collins, & Clark, 1996). Findings in marketing research suggest the operation of a similar heterogeneity in consumers’ relationship ideals. In both business-to-business and business-to-consumer relationships, some customers have been shown to prefer close, intimate, and rather informal personal contacts whereas others prefer more remote, impersonal, and formal contacts (Barnes, 1997; Hakansson, 1982, 1989; Witkowski & Thibodeau, 1999; Price & Arnould, 1999). Incorporating these findings, we offer:

\[ H_3 \]: Secure consumer attachment is positively related to preferences for relationship marketing tactics that involve personal interactions or possess a personalized and intimate character.

We close this section with two hypotheses concerning the effects of secure consumer attachment on commercial relationships of different durations. These predictions build on the finding that over time, with the accumulation of specific experiences, more relation-specific attachment models are formed to account for and drive behaviors in a given relationship (Collins & Read, 1994; Crittenden, 1990; Pierce & Lydon, 2001). According to this logic, the effects of any general attachment model on a specific relationship will diminish progressively with increasing duration of that relationship as more relation-specific attachment models replace them (Collins & Read, 1994; Pierce & Lydon, 2001). Our consumer attachment construct involves a generalized attachment orientation as may manifest within the broadly-defined class of commercial relationships. An individual might apply his/her consumer attachment template to novel commercial relationships but, over time, with increasing experience, the individual would develop and apply a customized attachment model for that specific relationship or relationship sub-class. The impact of the mid-range consumer attachment orientation should therefore decrease over time as particular relationship experiences are accumulated and more specific attachment models.
H₄ₐ: The impact of secure consumer attachment on trust in a particular commercial relationship decreases with the duration of that relationship.

H₄₈: The impact of secure consumer attachment on satisfaction in a particular commercial relationship decreases with the duration of that relationship.

The Interplay between Personal and Consumer Attachment

Hypotheses in this section concern expected relationships between the popular notion of secure personal attachment and our new secure consumer attachment construct. First, we expect consistencies comparable to those that have been identified for attachment constructs across relationship settings in personality research (Asendorpf & Wilpers, 2000; Crowell, Fraley, & Shaver, 1999). Confirmation of H₅ would serve as proof of concurrent validity for the new measure of secure consumer attachment.

H₅: Secure personal attachment is positively correlated with secure consumer attachment.

Our next hypotheses weigh the relative predictive capacity of personal versus consumer attachment. These hypotheses build from attachment research demonstrating that more general measures of attachment do not significantly predict relationship quality outcomes when more specific attachment orientations are controlled for (Cozzarelli, Hoekstra, & Bylsma, 2000; Pierce & Lydon, 2001; Klohnen et al., 2005). Thus we posit superiority for consumer attachment versus the more general personal attachment. This hypothesis also builds from attitude research demonstrating superiority for independent variables measured at the same level of specificity as the dependent variables they are trying to predict (Fishbein & Ajzen, 1975). In our research, consumer attachment represents a more specific attachment measure that is better aligned with behaviors and attitudes in the particular commercial relationship setting.

H₆ₐ: Secure personal attachment has no significant impact on trust in a particular commercial relationship when the more specific secure consumer attachment is controlled for.

H₆₈: Secure personal attachment has no significant impact on satisfaction in a particular commercial relationship when the more specific secure consumer attachment is controlled for.

Longitudinal Effects of Attachment on Commercial Relationship Strength

A primary goal of this research is to provide a theoretical framework that can explain differences in commercial relationship behaviors and thereby identify consumers with a propensity to develop and sustain strong relationships with companies and brands. If consumer attachment is to serve this purpose, then it should manifest a consistent and enduring impact on relationship strength over time. Hypotheses in this series explore whether and how consumer attachment influences trust, satisfaction, and loyalty over time. Our first hypotheses build from Ainsworth’s (1967, 1991) framing of attachment as a continuously-functioning system, and Bowlby’s (1973) original conceptualization of attachment styles as chronically-accessible working models of relationships. These conceptions imply enduring effects of secure consumer attachment on relationships over time:

H₇ₐ: Secure consumer attachment has a positive impact on trust in a given commercial relationship over time.

H₇₈: Secure consumer attachment has a positive impact on relationship satisfaction in a given commercial relationship over time.

H₇₉: Secure consumer attachment has a positive impact on loyalty in a given commercial relationship over time that is mediated through trust and satisfaction.

Critical in this predictive validation exercise is the need to control for confounding variables that can explain consumers’ propensities to form strong relationships with commercial partners over time. Research in marketing and psychology offers two constructs in this regard: relationship proneness and the need for sociability. Relationship proneness, “a consumers’ relatively stable and conscious tendency
to engage in relationships with retailers of a particular product category,” has been shown to impact a range of relationship quality indicators such as satisfaction, trust and commitment (De Wulf, Odekerken-Schröder, & Iacobucci, 2001, p. 38). Need for sociability is a more general personality trait that reflects an individual's drive to connect with other people and engage in social relationships with them (Cheek & Buss, 1981; Bloemer, Odekerken-Schröder, & Kestens, 2003). We propose that secure consumer attachment will have unique effects on relationship quality measures over time after controlling for these competing constructs.

\( H_0: \) The enduring effects of secure consumer attachment hold when relationship proneness and need for sociability are controlled for.

**Method**

**Research Setting**

The automotive industry was chosen as an appropriate context for our study in light of two factors: (1) high characteristic product involvement levels conducive to relationship formation, and (2) frequent relationship marketing activity (Johnson et al., 1997). Our study investigates the relationships that form between consumers and their car dealerships in this high-potential commercial relationship realm.

**Measure Development**

**Secure Personal Attachment.** We pursued an empirical strategy for operationalizing secure personal attachment in light of recognized problems in construct measurement via existing scales. Published studies employing dimensional measures for the operationalization of personal attachment (Asendorpf et al., 1997; Collins, 1996; Collins & Read, 1990; Feeney, Noller, & Callan, 1994; Shaver, Belsky, & Brennan, 2000) have relied on exploratory scale validation techniques with oblique rotation, the limitations of which are widely known (Peter, 1981). While Sanford’s (1997) study provides a rare application of confirmatory factor analysis techniques, half of the items in this scale have indicator reliabilities below .2. These results do not suggest promise for scale validation using confirmatory techniques with one of the published attachment security scales.

Measure development began with the selection of a pool of fifteen of the most diagnostic items from the above-mentioned studies. This initial item pool (along with additional items noted below) was refined in a pretest conducted among 40 respondents drawn randomly from the customer base of the cooperating automobile manufacturer. Based on item-to-total correlations and frequency distributions, eight items were dropped from further consideration. Appendix A-1 contains the final seven items used to measure secure personal attachment. All items were measured using 5-point Likert scales ranging from 1=definitely not to 5= definitely yes. Respondents answered the personal attachment questions using a “partner” frame of reference. As is standard in psychological attachment studies, if respondents did not have a partner, they did not answer the attachment questions.

**Secure Consumer Attachment.** As a first step in operationalizing the new consumer attachment construct, we conducted four focus groups with customers of the cooperating automobile manufacturer. Twenty-nine participants were randomly recruited from the manufacturer’s purchaser list; participants received a small monetary incentive for their involvement. Customers were asked to talk generally about their relationships with companies. Probing sought an understanding of the nature of consumers’ bonding styles with commercial relationship partners, and the ease and zeal with which such relationships were formed. Based on a thematic analysis of these discussions, as informed by cross-referencing with published measures of secure personal attachment, we developed an initial pool of 15 items to measure secure consumer attachment. Items were reviewed by two academics familiar with attachment theory to qualify their parallelism, face validity, and comprehensibility. Twelve qualifying items were included in the pretest questionnaire conducted among 40 respondents described above. Again, based on item-to-total correlations and frequency distributions, some items were dropped from further consideration. Appendix
A-1 presents the final seven items used to measure secure consumer attachment. Again, all items were measured using 5-point Likert scales ranging from 1=definitely not to 5= definitely yes.

In both the pretest and the final survey, respondents were asked to think generally about their orientations in commercial relationships; they did not rate attachment orientations adopted in specific relationships within an industry, a product category, or for a particular company. We instructed respondents as follows: “Please think about your relationships with companies for which you are a customer. For example, think about your relationship with your bank, your tax consultant, your phone and cable providers, specialty shops that you frequent, and product brands that you use.” This approach addressed a dominant criticism of relationship-specific attachment research applications wherein measures of relationship-specific attachment (e.g., “It is easy for me to rely on partner X”) and those for relationship-specific behaviors and experiences (e.g., “I am loyal to partner X”) are part of a shared semantic network and therefore naturally correlated with each other (Asendorpf & Wilpers 2000; Hazan & Shaver 1990). Our items, which are phrased in the context of general commercialism and business (e.g., “It is easy for me to rely on companies I do business with”) and not with respect to a specific company (e.g., “It is easy for me to rely on company X”) are intended to alleviate this problem.

**Operationalizing the Dependent Variables.** Items to measure relationship quality were adapted from published studies in consumer and business research. Satisfaction with the dealer was measured using Bloemer and Lemmink’s (1992) study in the automotive context. Loyalty to the dealership was operationalized as intention to repurchase from the same (dealership) organization (Bloemer & Lemmink, 1992; Oliver, 1999). Following the expectancy conceptualization of trust (Doney & Canon, 1997; Sirdeshmukh, Singh, & Sabol, 2002), trust items gauged the respondent’s beliefs about the dealer’s expertise, reliability, and intentionality. Appendix A-2 contains the final relationship strength items.

In order to qualify consumers’ predispositions toward relationship marketing tactics evincing a personalized or intimate character, we first compiled an audit of the marketing activities of several dealerships and a car brand. From this three-year review, we identified a list of 12 categories of marketing tactics; three marketing academics classified these into two groups according to higher versus lower intimacy and personalization levels. Across-rater agreement levels were in excess of 90% for all tactics (See Appendix A-3 for classification of intimate and personal versus classic marketing advances). In the final survey, respondents were asked to indicate their predispositions toward each marketing activity using a five-point rating scale anchored from “annoying” to “something I would appreciate.” A mean rating over all assigned tactics was computed for the classical/distanced and relational/personalized categories.

**Data Collection**

Data for this study were obtained from a telephone survey conducted by a professional marketing research company. Respondents were randomly sampled from a sponsoring manufacturer’s customer database. A total of 2,251 customer addresses were used for the survey; 916 respondents could not be reached in three calls attempted. Of the 1,335 customers reached, 659 refused to participate and 33 were no longer active customers of the sponsoring manufacturer’s brand, yielding a total of 643 completes and a 49% response rate. Surveys averaged 30 minutes in length. Two customer complaints concerning the “highly personal nature” of select personal attachment questions surfaced in the second week of data collection. This prompted the sponsoring manufacturer to request the removal of personal attachment items from the survey. Further, nineteen respondents with no romantic partners did not complete the personal attachment questions. In the end, of 643 surveys completed, 283 contain personal attachment measures. No systematic differences in respondent profiles were found for the full versus abbreviated samples.

The average age of respondents in the final sample was 54.2 years (s.d. =12.6); 82% of the respondents were male. These statistics match manufacturer owner profiles. The average length of the relationship between consumers and dealerships was 10.6 years (s.d. = 9.6). Further, 93% of respondents used their dealerships for both purchase and service while the remaining 7% were purchase-only customers. The substantial average duration of dealer relationships and the frequency of interaction implied in service maintenance confirm the appropriateness of our setting to the study of relationship phenomena.
A follow-up survey was conducted twenty months after the initial survey to assess whether consumer attachment had an enduring impact on relationship quality over time. Of the original 643 respondents, 351 participated in the second survey. In addition to standard relationship quality measures, data was collected on relationship proneness and sociability traits. The follow-up survey took on average seven minutes to complete.

Results

Models were estimated with LISREL 8.52 (Jöreskog & Sörbom, 2001). We conducted listwise deletion of cases with missing values. Due to the aforementioned complaints, the number of cases for models including personal attachment is lower than for models including consumer attachment only. Five respondents who gave the same answer on all personal attachment questions (some were reverse coded) were deleted, further reducing the model estimation base.

Validating the Attachment Measures

Secure Personal Attachment. Following Sanford (1997) and in line with our hypotheses, we tested a one-factor solution for secure personal attachment. The one-factor model provided only a moderate fit with $\chi^2(14) = 34.64$ ($p = .00$), RMSEA = .081 and CFI = .81. Item statistics indicated high error correlations for two reverse-coded items: these had indicator reliabilities below .25. A final one-factor model in which these two items were deleted had an excellent fit: $\chi^2(5) = 7.98$ ($p = .16$), RMSEA = .051 and CFI = .95. We accept this result as a validation of the secure personal attachment dimension.

Secure Consumer Attachment. Again, we expected a one-factor model to fit the data. This hypothesized model did not fit: $\chi^2(14) = 253.56$ ($p = .00$), RMSEA = .18 and CFI = .71. Two distinguishing themes captured the sets of items with high versus low estimated lambda values. One set of items indicated consumer’s acceptance of the risks exposed in the pursuit of close commercial relationships, and a relative willingness to depend on and trust companies in this regard. Lambdas for all these items were below .45. Items with lambdas above .68 tapped a general drive to establish close personal relationships with commercial partners, and a strong desire for and embrace of that end. This result suggested that in commercial relationships, the counterpart to the secure personal attachment manifests in two facets: (1) an embrace of vulnerability dimension, which measures the consumers’ ability, ease, comfort, and willingness to rely on, trust in, and place oneself in a position of dependency or vulnerability in commercial relationships, and (2) a drive for closeness dimension, which indicates the consumer’s desire, willingness, and motivation to develop personal bonds with commercial partners overall. This empirical result is in line with Asendorpf and Wilpers’ (2000) contention that the structure of attachment dimensions can vary across relationship classes.

Building on these results, a two-factor model with separate embrace of vulnerability and drive for closeness facets was tested. After deletion of one item with low indicator reliability (.12), the two-factor model provided a very good fit: $\chi^2(8) = 18.18$ ($p = .02$), RMSEA = .050 and CFI = .99. Evidence of discriminant validity (Fornell & Larcker, 1981) between the two facets of secure consumer attachment was also obtained: the correlation between facets was .38, and the average variance extracted (.51, .56) clearly exceeded the shared variance of both facets (.14). This two-factor model suggests that, in commercial relationships, embrace of vulnerability and drive for closeness should exert independent effects: for example, one can have a high ability and willingness to trust or depend on companies/brands and thereby successfully confront relational vulnerabilities without having a desire to be personally close to the companies concerned (or vice versa). This contention is informed empirically, in the results sections below. Discriminant validity for all other model constructs in the cross-sectional as well as the longitudinal data set was also supported through results of exploratory factor analyses as well as the more rigorous Fornell-Larcker criterion (see Appendices A-4 and A-5 for details).

Personal Attachment Effects on the Strength of Commercial Relationships
We first assessed the impact of personal attachment on dealer relationship quality as measured by trust and satisfaction levels. The model had a good fit with $\chi^2(48) = 86.63$ ($p = .00$), RMSEA = .060 and CFI = .97 (N=226). As seen in Table 1, hypotheses $H_{1a}$ and $H_{1b}$ were both confirmed: secure personal attachment had a positive and significant impact on dealer trust ($\gamma_{21} = .27$, $p < .05$) and satisfaction ($\gamma_{11} = .23$, $p < .05$). Secure personal attachment had no significant impact on dealer loyalty levels. Fixing the paths from both satisfaction and trust to loyalty to zero, secure personal attachment had a significant, direct impact on dealer loyalty ($\gamma_{31} = .21$, $p < .05$). This result confirms $H_{1c}$ and is consistent with previous studies documenting trust as a mediating mechanism in the loyalty chain (Morgan & Hunt, 1994).
Table 1: Personal Attachment Effects on the Quality of Commercial Relationships

<table>
<thead>
<tr>
<th>Relationship Quality Indicators</th>
<th>Secure Personal Attachment $\xi_1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with Dealer Experience $\eta_1$</td>
<td>$\gamma_{11} = 0.23^*$ (t = 2.67)</td>
</tr>
<tr>
<td>Dealer Trust $\eta_2$</td>
<td>$\gamma_{21} = 0.27^*$ (t = 3.01)</td>
</tr>
<tr>
<td>Loyalty to the Dealership $\eta_3$</td>
<td>$\gamma_{31} = 0.02$ (t = 0.27)</td>
</tr>
</tbody>
</table>

Interrelationships between Satisfaction, Trust and Loyalty

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Path Coefficient</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction ($\eta_1$) $\rightarrow$ Loyalty ($\eta_3$)</td>
<td>$\beta_{31} = 0.14$</td>
<td>(t = 1.73)</td>
</tr>
<tr>
<td>Trust ($\eta_2$) $\rightarrow$ Loyalty ($\eta_3$)</td>
<td>$\beta_{32} = 0.56^*$</td>
<td>(t = 5.95)</td>
</tr>
<tr>
<td>Satisfaction ($\eta_1$) $\leftrightarrow$ Trust ($\eta_2$)</td>
<td>$\psi_{21} = 0.53^*$</td>
<td>(t = 5.82)</td>
</tr>
</tbody>
</table>

All tests of significance are two-tailed. $^*p < 0.05.$
Consumer Attachment Effects on the Strength of Commercial Relationships

Through $H_{2a}$, $H_{2b}$, and $H_{2c}$ we explored the impact of our two-faceted commercial relationship attachment construct on trust, satisfaction and loyalty levels. As shown in Table 2, the model exhibited an excellent fit [$N = 345$, $\chi^2(55) = 80.29 (p = .04)$, RMSEA = .037 and CFI = .99]. Embrace of vulnerability had a strong positive and significant ($p < .01$) impact on satisfaction ($\gamma_{11} = .44$) and trust ($\gamma_{21} = .49$). The impact on loyalty was again not significant.
Table 2: Consumer Attachment Effects on the Quality of Commercial Relationships

<table>
<thead>
<tr>
<th>Relationship Quality Indicators</th>
<th>Model Fitted</th>
<th>Embrace of Vulnerability $\xi_1$</th>
<th>Drive for Closeness $\xi_2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dealer Satisfaction $\eta^1$</td>
<td>overall</td>
<td>$\gamma_{11} = 0.44^*$ (t = 5.08)</td>
<td>$\gamma_{12} = -0.15^*$ (t = -2.33)</td>
</tr>
<tr>
<td></td>
<td>up to 8 years</td>
<td>$\gamma_{11} = 0.44^*$ (t = 4.93)</td>
<td>$\gamma_{12} = -0.17^*$ (t = -2.36)</td>
</tr>
<tr>
<td></td>
<td>over 14 years</td>
<td>$\gamma_{11} = 0.12$ (t = 1.03)</td>
<td>$\gamma_{12} = -0.09$ (t = -0.69)</td>
</tr>
<tr>
<td>Dealer Trust $\eta^2$</td>
<td>overall</td>
<td>$\gamma_{21} = 0.49^*$ (t = 5.80)</td>
<td>$\gamma_{22} = -0.03$ (t = -0.43)</td>
</tr>
<tr>
<td></td>
<td>up to 8 years</td>
<td>$\gamma_{21} = 0.62^*$ (t = 6.42)</td>
<td>$\gamma_{22} = -0.10$ (t = -1.29)</td>
</tr>
<tr>
<td></td>
<td>over 14 years</td>
<td>$\gamma_{21} = 0.23^*$ (t = 2.13)</td>
<td>$\gamma_{22} = 0.09$ (t = 0.78)</td>
</tr>
<tr>
<td>Loyalty to Dealership $\eta^3$</td>
<td>overall</td>
<td>$\gamma_{31} = -0.05$ (t = -0.76)</td>
<td>$\gamma_{32} = 0.13^*$ (t = 2.33)</td>
</tr>
<tr>
<td></td>
<td>up to 8 years</td>
<td>$\gamma_{31} = 0.02$ (t = 0.20)</td>
<td>$\gamma_{32} = 0.07$ (t = 1.08)</td>
</tr>
<tr>
<td></td>
<td>over 14 years</td>
<td>$\gamma_{31} = -0.10$ (t = -1.04)</td>
<td>$\gamma_{32} = 0.17$ (t = 1.55)</td>
</tr>
</tbody>
</table>

Interrelationships between Satisfaction, Trust, and Loyalty

<table>
<thead>
<tr>
<th>Satisfaction ($\eta^1$) $\rightarrow$ Loyalty ($\eta^3$)</th>
<th>overall</th>
<th>$\beta_{31} = 0.05$ (t = 0.88)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>up to 8 years</td>
<td>$\beta_{31} = 0.01$ (t = 0.20)</td>
</tr>
<tr>
<td></td>
<td>over 14 years</td>
<td>$\beta_{31} = 0.10$ (t = 0.99)</td>
</tr>
<tr>
<td>Trust ($\eta^2$) $\rightarrow$ Loyalty ($\eta^3$)</td>
<td>overall</td>
<td>$\beta_{32} = 0.63^*$ (t = 7.90)</td>
</tr>
<tr>
<td></td>
<td>up to 8 years</td>
<td>$\beta_{32} = 0.66^*$ (t = 7.81)</td>
</tr>
<tr>
<td></td>
<td>over 14 years</td>
<td>$\beta_{32} = 0.47^*$ (t = 3.98)</td>
</tr>
</tbody>
</table>

All tests of significance are two-tailed. *p < 0.05

In row 1 of each cell, model results for the overall sample are reported. Row 2 of each cell shows the model results for customers with relationships of 8 years or less in duration. Results for customers with relationships of 14 years and more in duration appear in the third row. (See Model Fitted Column)
Per H\(_2\), and following on the non-significant effect of embrace of vulnerability on loyalty, we tested whether satisfaction and trust acted as mediators of the embrace of vulnerability facet effect. Fixing the paths of both satisfaction and trust on loyalty to zero resulted in a significant direct path of the embrace of vulnerability facet on loyalty (\(\gamma_{31} = .28, p < .01\)). This results pattern supports that embrace of vulnerability affects loyalty levels, but that its impact is fully mediated through satisfaction and trust (Baron & Kenny, 1986).

The drive for closeness facet had a different and lesser impact on relationship quality than did the embrace of vulnerability facet. Drive for closeness had a positive and significant impact on dealer loyalty (\(\gamma_{32} = .13, p < .05\)) and a negative and significant effect on satisfaction (\(\gamma_{12} = -.15, p < .05\)). Evidence of predictive validity for the embrace of vulnerability facet as it impacts on trust and satisfaction and, indirectly, upon loyalty levels in a dealer relationship setting was obtained, with explained variance ranging between 17% (satisfaction) and 23% (trust). Collectively, these results provide partial support for the \(H_2\) series.

Based on reviewers’ suggestions we also tested a competing model wherein consumer attachment acted as a moderator of the effects of satisfaction and trust on loyalty. Consistent with published attachment studies in psychology, where only main effects on trust, satisfaction, and commitment have been found, the interaction effects between secure attachment and trust and satisfaction were not significant.

Per \(H_3\), we tested the effects of secure consumer attachment on predispositions toward intimate and personalized relationship marketing activities. Two separate regressions were estimated, one for each class of relationship marketing tactics (relational/personalized versus classical/distanced). Mean ratings for each category of tactics, as computed across all tactic exemplars, served as dependent variables in our analysis (see Appendix A-3). Factor scores for each of the two consumer attachment dimensions as well as an interaction term for the two consumer attachment dimensions served as independent variables. Results support that predispositions toward relationship marketing tactics are systematically affected by consumer attachment, though results differed for the two secure attachment facets. In line with \(H_3\) the effect of drive for closeness was significant: the higher consumers scored on drive for closeness, the stronger their predisposition toward personalized and interactive relationship marketing tactics (\(\beta = 0.39, p < .05\)). Both the main effect of embrace of vulnerability and the interaction of embrace of vulnerability and drive for closeness were not significant (all \(p\) values > .10). In the second regression, in which predispositions towards more distanced and classical marketing tactics were examined, drive for closeness again exhibited a significant effect (\(\beta = 0.14, p < .05\)). Again, both the effect of embrace of vulnerability as well as the interaction effect of embrace of vulnerability and drive for closeness were non-significant (all \(p\)-values > .10). To summarize, respondents that scored high on drive for closeness exhibited a stronger predisposition for marketing interventions of any sort, regardless of their personalized and interactive nature; embrace of vulnerability had no effect on preferences for any marketing advances. We qualify this result by noting that the explained variance of drive for closeness is negligible for classic relationship tactics (\(R^2\) adj. = 0.02) compared to intimate and personalized relationship marketing activities (\(R^2\) adj. = 0.19). These results offer qualified support for \(H_3\).

Per \(H_4a\) and \(H_4b\) we tested for evidence of the increased specification of attachment models over time: namely, whether the effects of consumer attachment (a generalized commercial relationships model) on a specific dealer relationship (a specific relationship setting) would diminish with the duration of that particular relationship. A multi-group analysis was conducted to test the proposed moderating effect of the duration of the commercial relationship. Respondents were divided into two sub-samples based on the quartile distribution of the length of the consumer-dealer relationship. In the shorter relationships (lower two quartiles), relationship length varied from .5 to 8 years with an average tenure of 3.9 years. In the longer relationship duration group (upper quartile of the distribution), relationship length varied from 14 years up to 50 years, with an average relationship tenure of 24.5 years. The initial model provided a very good fit with \(\chi^2(110) = 159.13\) (p = .00), RMSEA = .047 and CFI = .98. Next, we assessed measurement invariance (tau-equivalence) across relationship tenure groups. We could neither reject the hypothesis of tau-equivalence for the secure consumer attachment facets \(\chi^2_d(4) = 3.23; p > .05\) nor the various relationship outcomes \(\chi^2_d(4) = 5.50; p > .05\). Proven tau-equivalence across groups allowed
further comparisons to be meaningfully tested. The hypothesis that the impact of drive for closeness on satisfaction and trust was equivalent in the two relationship duration sub-samples could not be rejected \[ \chi^2 (2) = 1.77; p > .05 \]. Apart from a negative effect on satisfaction for short-term relationships, the drive for closeness facet had no significant impact on satisfaction, trust or loyalty in either tenure group. A similar test for the embrace of vulnerability facet showed that its impact on trust and satisfaction differed significantly between the two groups \[ \chi^2 (2) = 7.41; p < .05 \]. For consumers with relatively short relationships, the impact of embrace of vulnerability on both trust and satisfaction was, with \( \gamma_{21} = .62 \) and \( \gamma_{11} = .44 \), strong and significant (see Table 2). In contrast, for consumers with lengthy dealer relationships, the impact of embrace of vulnerability was weaker for trust \( \gamma_{21} = .23 \) and, in the case of satisfaction non-significant \( \gamma_{11} = .11; p > .20 \). The explained variance in satisfaction and trust are, with 18% and 30%, substantial for shorter relationships, and with 0% and 17%, clearly less so for longer-term relationships. Fixing the effects of satisfaction and trust on loyalty to zero, the direct effect of embrace of vulnerability on loyalty was strong and significant for short dealer relationships \( \gamma_{31} = .44; p < .01 \) and non-significant for longer-term relationships \( \gamma_{31} = .02; p > .20 \). Thus, per our hypotheses, the proposed mediation mechanism operates only for shorter relationships but not for very long relationships. Similar results were obtained using a median split on the relationship duration variable, confirming that our naïve classification of short and longer-term relationships did not obscure nonlinear relationships in the multi-group analysis (Rigdon, Schumacker, & Wothke, 1998). Overall, this results pattern provides support for \( H_{4a} \), \( H_{4b} \), and the contention that the impact of more generalized commercial attachment orientations declines over the course of a given relationship as relationship-specific experiences are accumulated. Our consumer attachment construct has a greater effect in novel relationships where more specific attachment representations have yet to be formed.

The Interplay between Personal and Consumer Attachment

To review, we first proposed an across-relationship consistency between secure personal and secure consumer attachment in \( H_5 \) given common roots in the history of interpersonal experiences. To test this hypothesis, we ran a confirmatory factor analysis with secure personal attachment and the two empirically-derived facets for secure consumer attachment, embrace of vulnerability and drive for closeness. The model fit was good: \( \chi^2(41) = 62.46 (p = .02) \), RMSEA = .045 and CFI = .96. Secure personal attachment and the embrace of vulnerability facet were positively correlated at \( p < .05 \) with \( \phi = .20 (t = 2.27) \). The correlation between secure personal attachment and the embrace of vulnerability facet falls within the reported range of average consistencies across relationship types and methods for personal relationships (Crowell, Fraley, & Shaver, 1999) and supports the concurrent validity of this measure. The correlation between drive for closeness and secure personal attachment was positive but not significant at \( p < .10 \), with \( \phi = .10 (t = 1.65) \). Thus we obtain partial support for \( H_5 \) and the notion that secure adult attachment within the personal domain of romantic relationships is related to secure attachment as manifest in commercial settings.

Next, per \( H_{6a} \) and \( H_{6b} \), we tested whether the impact of secure personal attachment was overshadowed by the more specific measure, secure consumer attachment. We ran a model with both personal and consumer attachment as independent variables, and dealer trust, satisfaction, and loyalty as dependent variables (see Appendix A-4 for construct intercorrelations). The model fit was very good: \( \chi^2(120) = 159.41 (p = .01) \), RMSEA = .037 and CFI = .98. Per Table 3, secure personal attachment had no unique impact on commercial relationship quality outcomes when the more specific measure of consumer attachment was controlled for. The embrace of vulnerability facet had a significant impact on dealer trust and satisfaction, with mediating effects on loyalty once again confirmed. This result supports \( H_{6a} \) and \( H_{6b} \) and provides further evidence for the nomological validity of our secure consumer attachment construct, and notably its embrace of vulnerability facet.
Table 3: The Relative Importance of General (Personal) versus Specific (Consumer) Attachment Models

<table>
<thead>
<tr>
<th>Relationship Quality Indicators</th>
<th>Embrace of Vulnerability $\xi_1$</th>
<th>Drive for Closeness $\xi_2$</th>
<th>Secure Personal Attachment $\xi_3$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction Dealer Experience $\eta_1$</td>
<td>$\gamma_{11} = 0.22^*$ (t = 2.09)</td>
<td>$\gamma_{12} = -0.05$ (t = -0.51)</td>
<td>$\gamma_{13} = 0.10$ (t = 1.21)</td>
</tr>
<tr>
<td>Dealer Trust $\eta_2$</td>
<td>$\gamma_{21} = 0.39^*$ (t = 3.42)</td>
<td>$\gamma_{22} = -0.07$ (t = -0.68)</td>
<td>$\gamma_{23} = 0.09$ (t = 1.10)</td>
</tr>
<tr>
<td>Loyalty to the Dealership $\eta_3$</td>
<td>$\gamma_{31} = 0.02$ (t = 0.26)</td>
<td>$\gamma_{32} = 0.10$ (t = 1.32)</td>
<td>$\gamma_{33} = -0.03$ (t = -0.46)</td>
</tr>
</tbody>
</table>

Interrelationships between Satisfaction, Trust, and Loyalty

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Path Coefficient</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction ($\eta_1$) $\rightarrow$ Loyalty ($\eta_3$)</td>
<td>$\beta_{31} = 0.15$</td>
<td>(t = 1.82)</td>
</tr>
<tr>
<td>Trust ($\eta_2$) $\rightarrow$ Loyalty ($\eta_3$)</td>
<td>$\beta_{32} = 0.56^*$</td>
<td>(t = 5.80)</td>
</tr>
</tbody>
</table>

All tests of significance are two-tailed. *p < 0.05
Longitudinal Effects of Attachment on the Strength of Commercial Relationships

Our follow-up survey, conducted 20 months after the initial study, was used to test whether consumer attachment impacted the quality of commercial relationships over time. First, we assessed non-response bias and tested whether the 351 respondents participating in the second wave differed systematically from non-respondents based on measures taken in the first wave of the study. Respondents did not systematically differ from non-respondents concerning their relationship with the car dealership. Differences between respondents and non-respondents on satisfaction, dealer trust and dealer loyalty were not significant at p < .05. Respondents also did not differ from non-respondents on age or the length of their relationships. Female customers were slightly underrepresented among respondents in the second wave, as indicated by a significant (p < .05) Chi-square test, though results patterns did not vary by gender.

The longitudinal effects of consumer attachment were tested in the hypothesis series H7a through H7c. The model provided a very good fit: $\chi^2(80) = 113.49$ ($p = .01$), RMSEA = .038 and CFI = .99. Results in Table 4 indicate that, as before, the embrace of vulnerability facet continued its significant positive impact on dealer trust ($\gamma^2 = .37$, $p < .01$) and satisfaction ($\gamma^1 = .30$, $p < .01$) twenty additional months into the dealer relationship. Fixing the paths of both satisfaction and trust on loyalty to zero resulted in a significant direct path of the embrace of vulnerability facet on loyalty ($\gamma^3 = .20$, $p < .05$). This result pattern again supports that embrace of vulnerability affects loyalty levels, but that its impact is fully mediated through satisfaction and trust. Explained variance in satisfaction (9%) and trust (11%) was low in magnitude but notable considering the significant time lag between measurement of consumer attachment and relationship outcomes. As before the drive for closeness facet has no significant impact on measures of relationship quality.
Table 4: Consumer Attachment Effects on Commercial Relationship Quality over Time

<table>
<thead>
<tr>
<th>Relationship Quality at Wave 2</th>
<th>Model Fitted</th>
<th>Embrace of Vulnerability</th>
<th>Drive for Closeness</th>
<th>Relation Proneness/Sociability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ξ₁</td>
<td>ξ₂</td>
<td>ξ₃</td>
</tr>
<tr>
<td>Dealer Satisfaction η₁</td>
<td>no controls</td>
<td>γ₁₁ = 0.30* (t = 3.25)</td>
<td>γ₁₂ = -0.01 (t = -0.08)</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>rel. proneness sociability</td>
<td>γ₁₁ = 0.28* (t = 3.04)</td>
<td>γ₁₂ = -0.04 (t = -0.43)</td>
<td>γ₁₃ = 0.18* (t = 2.24)</td>
</tr>
<tr>
<td>Dealer Trust η₂</td>
<td>no controls</td>
<td>γ₂₁ = 0.37* (t = 3.97)</td>
<td>γ₂₂ = -0.06 (t = -0.73)</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>rel. proneness sociability</td>
<td>γ₂₁ = 0.33* (t = 3.65)</td>
<td>γ₂₂ = -0.12 (t = -1.37)</td>
<td>γ₂₃ = 0.31 (t = 4.07)</td>
</tr>
<tr>
<td>Loyalty to Dealership η₃</td>
<td>no controls</td>
<td>γ₃₁ = -0.07 (t = -0.92)</td>
<td>γ₃₂ = 0.04 (t = 0.64)</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>rel. proneness sociability</td>
<td>γ₃₁ = -0.07 (t = -0.93)</td>
<td>γ₃₂ = 0.05 (t = 0.64)</td>
<td>γ₃₃ = 0.01 (t = 0.11)</td>
</tr>
</tbody>
</table>

Interrelationships between Satisfaction, Trust, and Loyalty

<table>
<thead>
<tr>
<th>Satisfaction (η₁) → Loyalty (η₃)</th>
<th>Model Fitted</th>
<th>β₃₁ = 0.29* (t = 4.54)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no controls</td>
<td>β₃₁ = 0.29* (t = 4.53)</td>
</tr>
<tr>
<td></td>
<td>rel. proneness sociability</td>
<td>β₃₁ = 0.29* (t = 4.54)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trust (η₂) → Loyalty (η₃)</th>
<th>Model Fitted</th>
<th>β₃₂ = 0.50* (t = 7.45)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no controls</td>
<td>β₃₂ = 0.49* (t = 7.03)</td>
</tr>
<tr>
<td></td>
<td>rel. proneness sociability</td>
<td>β₃₂ = 0.49* (t = 7.32)</td>
</tr>
</tbody>
</table>

All tests of significance are two-tailed. *p < 0.05

In Row 1 of each cell, the model with no controls is reported; Row 2 of each cell provides the model with relationship proneness as a control; Row 3 provides the model controlling for sociability (See Model Fitted Column)
To corroborate this result, we also tested whether personal attachment exerted a significant impact over time (see Appendix A-5 for construct intercorrelations). The direct impact of personal attachment on both satisfaction and trust was not significant. Given that in the first wave the impact of personal attachment was weaker than that of consumer attachment, this non-significant result is not surprising. Still, this result further underscores the utility and necessity of an attachment construct tailored to the commercial relationship class.

Per $H_8$, we assessed the stability of our longitudinal results for secure consumer attachment by controlling for the conceptually-related constructs relationship proneness and sociability (see Table 4). The direct impact of embrace of vulnerability on both satisfaction and trust remained robust in the face of these controls: a powerful result given that relationship proneness and sociability were measured at the same point in time as the dependent outcome variables. The mediated impact of embrace of vulnerability on loyalty in the face of controls was also confirmed: fixing the paths from satisfaction and trust to zero, the direct impact of embrace of vulnerability remained significant when relationship proneness ($\gamma_{31} = .17, p < .05$) and sociability ($\gamma_{31} = .20, p < .05$) were controlled for. Effects of drive for closeness were, as before, insignificant. $H_8$ was thus supported for the embrace of vulnerability facet, which possessed a unique and consistent impact on relationship quality over time that could not be explained by the competing constructs of relationship proneness and sociability.

Conclusions and Implications

This research applies and extends attachment theory as a framework for understanding relationships in the service consumption context. Results from a longitudinal field study demonstrate that an individual’s personal attachment orientation is systematically related to differences in the quality of their marketplace relationships. Moreover, results show that personal attachment affects commercial relationship attitudes and behaviors in much the same ways that it affects interpersonal relationships and behaviors: individuals high on secure attachment experience greater satisfaction, trust, and loyalty. While the statistical relations qualifying these personality effects are not particularly strong, our results are significant and characteristic of personality trait studies in general (Kassarjian & Sheffet, 1991). Further, they stand as notable in the context of the diverse domains that our personality-behavior inquiry crosses. Study results add to the impressive body of evidence supporting attachment theory, and corroborate recent domain expansion studies for personal attachment effects.

Study results also support that attachment theory can be fruitfully extended into the consumption context through operationalization of a consumer attachment construct specific to the commercial relationships domain. Qualified evidence of concurrent, discriminant, nomological, and face validity for a two-dimensional instantiation of secure consumer attachment is obtained. Results for the embrace of vulnerability facet of secure consumer attachment (i.e., the consumer’s ability, ease, comfort, and willingness to rely on, trust in, and place oneself in a position of vulnerability regarding businesses and brands) are compelling. Embrace of vulnerability has a consistent, strong, and enduring positive impact on trust and satisfaction in the focal commercial relationship and mediated effects on loyalty levels. Drive for closeness (i.e., the consumers’ desire for and motivation to establish personal relationships with commercial partners and brands) exerts a qualitatively different effect by influencing a general desire for marketing advances and interventions. Though not related to mediating trust responses, drive for closeness encourages stronger dealer loyalty and manifests in lower dealer satisfaction levels, this latter result perhaps obtained through the mechanism of heightened expectations (Aaker et al., 2004). The effects of drive for closeness, however, are weaker than those for embrace of vulnerability, and neither persist over time nor manifest when secure personal attachment is controlled for.

Observed facet differences, while contrary to ingoing hypotheses advancing secure attachment as a one-dimensional construal, confirm Asendorpf and Wilpers’ (2000) contention that the structure of attachment can vary across different relationship classes. Moreover, the discovery of different roles for the independent but related facets provides needed validation support for our empirically-derived consumer attachment construct. This result also fits with logic in select relationship marketing literatures. Qualitative research suggests that a general desire for and motivation to establish (or avoid) intimate and personal business relations (i.e., our drive for closeness facet) promotes an affinity toward (or rejection of) marketing activities that attempt to connect the firm, brand, and consumer (Fournier, Dobscha & Mick, 2000).
Further, given the pivotal role of vulnerability in the establishment of trust (Morgan & Hunt, 1994; Moorman, Deshpande & Zaltman, 1993), it is sensible that the consumer’s willing exposure to risks and vulnerabilities (i.e., our embrace of vulnerability facet) drives felt trustworthiness, and, as a consequence, satisfaction and loyalty levels.

Importantly, our consumer attachment construct is also shown to be consistent with the personal attachment construct from which it derives, though our more-specific consumer attachment, as expected, evinces greater predictive and explanatory power. While secure personal attachment is positively correlated with secure consumer attachment (in terms of the embrace of vulnerability facet), its effects on relationship strength are overpowered by the more domain-specific consumer attachment construct. Further, we show that consumer attachment does not moderate known effects of satisfaction and trust on loyalty. Our mediated and main effects are consistent with published studies in psychology and marketing.

Our research also offers a rare opportunity to explore the longitudinal effects of attachment, per a second research wave conducted twenty months after the initial survey. Results support the enduring value of secure consumer attachment, and its embrace of vulnerability facet specifically, in the determination of commercial relationship quality over the long-term. Again, mediated effects on loyalty through satisfaction and trust are observed. These longitudinal effects hold in the face of controls for the conceptually-related constructs of relationship proneness and sociability. Also part of this evolutionary story, we obtain support for the developmental refinement of attachment models over time, whereby operative attachment models become progressively more relationship-specific as experiences accumulate. Multi-group analyses show that for relatively newer dealer relationships, the impact of our general measure of consumer attachment (specifically, the embrace of vulnerability facet) on relationship quality is stronger for dealer relationships that have endured for a long time.

Taken together, these results—correlation with personal attachment, as well as main, moderated, unique and longitudinal effects on commercial relationship quality—support the utility of a domain-specific attachment construct for explaining individual differences in attitudes and behaviors in the commercial relationship realm. Explained variance in relationship quality constructs is both higher for consumer attachment than for personal attachment, and substantial in an absolute sense, with between 13% and 24% of variance accounted for by secure consumer attachment (as compared to a range of 1% to 7% for personal attachment). This explanatory power is notable in the context of published personality studies in consumer research and beyond, where levels are consistently lower though still meaningful for understanding behavior (Auhagen & Hinde, 1997; Kassarjian, 1971; Kassarjian & Sheffet, 1991).

Implications for Marketing Theory and Practice

Our findings help qualify, extend, and apply marketing research that proposes actionable differences in consumer relationship behaviors. Results support qualitative research uncovering variability in consumers’ desires for close relationships with companies and brands (Barnes, 1997; Fournier, 1998; Fournier, Dobscha, & Mick, 1998; O’Malley, Patterson, & Evans, 1997; Price & Arnould, 1999), and provide diagnostic metrics for gauging these tendencies. Specifically, our model allows the identification of Price and Arnould’s (1999) friendship-averse customer segment, Fournier’s (1998) discerning relationship types, and Fletcher’s (2003) arm’s length transactors, thereby feeding demands for the early-stage identification of intrinsically short-lived relationships to guide marketing investments (Reichheld, 1996; Reinartz & Kumar, 2000). Increased diagnosticity is also promised through a more refined 4-way classification of consumers using high and low scores on the two attachment facets uncovered here.

Results also extend quantitative inquiries by offering a stronger theoretical foundation for and more rigorous and generalizable operationalization of people’s drives to establish marketing relationships (Odekerken-Schröder, De Wulf, & Schumacher, 2003). By grounding our classification in attachment theory, we provide needed insight into why certain consumers limit their relationships with firms, thereby offering direction for remedial marketing actions.

To this point, our two-faceted structure for consumer attachment can expand current thinking, implicit though it may be that relationship heterogeneity is a one-dimensional concern of approach versus avoidance in marketing relationships, and that marketers should strive to facilitate closeness at manageable costs. Attachment theory suggests that relational orientations derive from deeply-rooted and
personal past experiences, such that marketers may well be unable to change a person’s inherent drive
to establish relationships in the commercial realm. Still, our literature is replete with standing
recommendations for relationship outreach tactics that seek this very goal. For example, De Wulf,
Odekerken-Schröder, and Iacobucci (2001) recommend that retailers hire personnel based on their ability
to engage in social interactions and display warm, personal feelings toward customers. Our results
concerning the relative embrace of relationship marketing advances support that not all customers have a
preference for this type of relationship-building activity. An example underscores this point: 53% of the
customer scoring low (median split) on drive for closeness state that they consider “surprises/gifts to
commemorate special personal events, e.g. birthdays” as annoying or unnecessary investments. As a
field, we would be well-served engaging customers according to the relationship styles they have
developed, and the rules that are operative in the relationship grounds that they have claimed.

Perhaps more interesting from a theoretical and applied perspective are our findings concerning the
embrace of vulnerability facet of consumer attachment, which allows the discipline to move beyond its
fixation with innate drives for relational closeness. Empirical results for our drive-for-closeness facet are
not only consistently less compelling; the construct itself borders on the tautological with respect to
marketing implications. The idea of the consumers’ willing exposure to risks and vulnerabilities, on the
other hand, has traction: both in terms of relationship theories that implicate notions of trust (and thereby,
satisfaction and commitment), and also prescriptions for managerial strategies that can change people’s
perceptions of and comfort levels with the vulnerabilities their commercial relationships expose.
Research concerning employee-customer interactions, complaint handling, and crisis management
communications can be illuminating when re-interpreted within this expanded vulnerability exposure
frame.

Our results also support calls for a reinvigoration of the personality paradigm in marketing research
(Aaker et al., 2004; Bagozzi, 1994). Attachment orientations, with their characteristic differences in
relationship motives and ideals, suggest promise in the leverage of other personality constructs
concerning relationship-seeking orientations in the interpersonal realm: for example, intimacy motives
(McAdams, 1984), friendship styles (Matthews, 1986), interpersonal orientations (Swap & Rubin, 1983),
and the general need to belong (Baumeister & Leary, 1995). Personality investigations in marketing
research will not be without their challenges, as the customer complaints thwarting this study
demonstrate. Researchers will need to think creatively about reliable and valid ways to gather highly
personal and potentially intrusive diagnostic measures in the context of marketing research.

In their most general sense, our results provide incremental empirical support for the contention that
consumer-brand interactions may be legitimately construed as “relationships” between consumers and
their companies or brands (Aggarwal, 2004; Aggarwal & Law, 2005; Aggarwal & Zhang, 2006; Fournier,
1998; Price & Arnould, 1999). Parallel patterns for personal attachment effects in interpersonal and
commercial settings provide comfort with such relationship theoretic translations generally, while strong
results for consumer attachment build confidence in the relevancy of relational notions developed
specifically for the commercial domain. Although the existential reality of the commercial relationship may
never be proven, empirical results such as ours, which demonstrate that consumer-brand/dealer
engagements behave in an “as if” fashion to personal relationships, provide reasons to continue
development of the relationship paradigm in consumer research.

Areas for Future Research

Measurement concerns stand preeminent in research that seeks to advance attachment theory in
marketing. For various reasons, we chose general business as the referent for our measures of
consumer attachment over a more specific relationship frame. Still, there exists a trade-off or cost that
should be acknowledged in this decision: namely, the correspondence between measures of attachment
security and measures of endogenous variables is low. An alternate conception of consumer attachment
based on the consumer’s orientation to a particular brand or company can increase the specificity of the
connection between consumer attachment and relationship outcomes. Further, a specific measure of
consumer attachment would allow investigation of how particular company actions impact relationship-
specific attachments, which could prove more actionable for marketers. Careful operationalizations that
avoid problems associated with shared semantic networks can address natural limitations of this
approach. The modeling of method and other biases can also be attempted to avoid demand characteristics and related problems with this approach.

We also pursued the popular measurement approach of agree-disagree ratings on a range of attitudinal items, and this decision can be revisited as well. Moving forward, researchers may be well advised to engage more direct operationalizations that target the positive and negative working models that underlie attachment orientations (cf., Collins & Read, 1994). This measurement avenue is especially exciting given emergent research that identifies salient anti-business mental models operating in the contemporary cultural world (Holt, Quelch, & Taylor, 2004; Thompson & Arsel, 2004).

The mental-models approach to operationalization is also powerful in its ability to inform the process dynamics underlying consumers’ attachment responses, and thus may lend greater normative utility to future empirical research. Indeed, the need for insight into process mechanisms underlying attachment response is great (Simpson, Rholes, & Nelligan, 1992). Attribution theories, and the broader theories of social judgment and inference making that encompass them, might be leveraged for insight into the differences in satisfaction and trust that we found operative here. The notion of relationship norms, and in particular, the norms of reciprocity governing communal commercial relationships (Aggarwal, 2004; Aggarwal & Law, 2005; Aggarwal & Zhang, 2006) may also serve as mediating processes driving attachment effects. Longitudinal studies that explore the development and refinement of working models for attachment and attachment schemas will also prove powerful. Toward this end, we may find value in the specification of attachment models that are more refined than the commercial relationship class orientations we explored in our research, but more generalizable than the orientations that build from the experiences of a particular consumer and his/her company or brand. For example, we might examine attachment models for high-risk consumption items or models for different classes of relationality, such as commercial friendships (Price & Arnould, 1999), committed partnerships (Fournier 1998), or flings (Aaker et al., 2004). Following on the almost too-simple empirical relationships observed between personal and consumer attachment, future research should also probe for potential moderators of this translation, including formative attachment influences both within and outside the marketers’ control (e.g., consumer socialization, salience and valence of critical marketing experiences, and materialism). In future attachment research, as with any research that applies interpersonal theories to the marketing setting, careful thought should continue concerning the parallels and differences that manifest in personal versus commercial worlds.
References


## Attachment Constructs and Measures

<table>
<thead>
<tr>
<th>Item/Construct</th>
<th>Item Origin(^b)</th>
<th>Stand. Loading</th>
<th>Item/Construct Reliability</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Secure Personal Attachment(^a)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is easy for me to depend on my partner.</td>
<td>A</td>
<td>0.49</td>
<td>0.24</td>
<td>4.60</td>
<td>0.84</td>
</tr>
<tr>
<td>I am at ease being emotionally close to my partner.</td>
<td>A</td>
<td>0.68</td>
<td>0.47</td>
<td>4.71</td>
<td>0.75</td>
</tr>
<tr>
<td>I feel confident that my partner will be there for me if problems occur.</td>
<td>A</td>
<td>0.71</td>
<td>0.50</td>
<td>4.82</td>
<td>0.55</td>
</tr>
<tr>
<td>I am comfortable depending on my partner.</td>
<td>A, C</td>
<td>0.50</td>
<td>0.25</td>
<td>4.68</td>
<td>0.70</td>
</tr>
<tr>
<td>I find it difficult to trust my partner completely. (recoded)</td>
<td>A, C, S</td>
<td>Deleted</td>
<td>-</td>
<td>4.59</td>
<td>0.88</td>
</tr>
<tr>
<td>I'm nervous when my partner gets too close to me. (recoded)</td>
<td>C, S</td>
<td>Deleted</td>
<td>-</td>
<td>4.67</td>
<td>0.74</td>
</tr>
<tr>
<td>I find it easy to get close to my partner.</td>
<td>A, C, S</td>
<td>0.56</td>
<td>0.32</td>
<td>4.59</td>
<td>0.85</td>
</tr>
<tr>
<td><strong>Secure Consumer Attachment: Embrace of Vulnerability(^a)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is easy for me to rely on the companies I do business with.</td>
<td></td>
<td>0.83</td>
<td>0.70</td>
<td>3.58</td>
<td>1.15</td>
</tr>
<tr>
<td>I have difficulties completely trusting the companies I do business with. (recoded)</td>
<td></td>
<td>0.68</td>
<td>0.46</td>
<td>3.53</td>
<td>1.26</td>
</tr>
<tr>
<td>I am comfortable relying on the companies I do business with.</td>
<td></td>
<td>0.62</td>
<td>0.38</td>
<td>3.84</td>
<td>1.06</td>
</tr>
<tr>
<td><strong>Secure Consumer Attachment: Drive for Closeness(^a)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I try to establish a personal relationship with the companies I do business with.</td>
<td></td>
<td>0.67</td>
<td>0.44</td>
<td>3.09</td>
<td>1.33</td>
</tr>
<tr>
<td>I find it pleasant to have personal relationships with the companies I do business with.</td>
<td></td>
<td>0.79</td>
<td>0.63</td>
<td>3.34</td>
<td>1.35</td>
</tr>
<tr>
<td>I find it easy to establish personal relationships with the companies I do business with.</td>
<td></td>
<td>0.77</td>
<td>0.60</td>
<td>3.10</td>
<td>1.36</td>
</tr>
<tr>
<td>It is important for me that I get along with the companies I do business with on a personal level.</td>
<td>Deleted</td>
<td>-</td>
<td></td>
<td>3.96</td>
<td>1.10</td>
</tr>
</tbody>
</table>

\(^a\) All items measured with five-point scales anchored from “definitely not” to “definitely yes.”

\(^b\) Item origins: A = Asendorpf et al. (1997), C = Collins and Read (1990), S = Sanford (1997).

**NOTE:** All factor loadings significant (p < 0.01). Smallest t-value for personal attachment style = 3.74 and for consumer attachment = 10.00.
Appendix A-2
Relationship Quality Constructs and Measures

<table>
<thead>
<tr>
<th>Construct</th>
<th>Reliability</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Satisfaction with Dealer Experience</strong></td>
<td>0.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How satisfied have you been with the advice offered by your dealer?</td>
<td>0.86</td>
<td>0.74</td>
<td>4.84</td>
</tr>
<tr>
<td>How satisfied have you been with the professional competence of your dealer?</td>
<td>0.94</td>
<td>0.88</td>
<td>4.89</td>
</tr>
<tr>
<td>How satisfied have you been with the friendliness and helpfulness of your dealer?</td>
<td>0.85</td>
<td>0.71</td>
<td>5.09</td>
</tr>
<tr>
<td><strong>Dealer Trust</strong></td>
<td>0.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am confident that my dealer does everything he can to take care of me as a customer.</td>
<td>0.90</td>
<td>0.81</td>
<td>4.34</td>
</tr>
<tr>
<td>My dealer always treats me fairly.</td>
<td>0.87</td>
<td>0.76</td>
<td>4.38</td>
</tr>
<tr>
<td><strong>Loyalty to the Dealership</strong></td>
<td>0.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If my next car is Brand X, I would purchase it from my current dealership.</td>
<td>0.85</td>
<td>0.71</td>
<td>4.10</td>
</tr>
<tr>
<td>I will remain loyal to my dealership in the future.</td>
<td>0.97</td>
<td>0.94</td>
<td>4.05</td>
</tr>
</tbody>
</table>

*Items measured with six-point scales anchored from "totally unsatisfied" to "totally satisfied"*

*Items measured with five-point scales anchored from "definitely not" to "definitely yes."

*Items measured with five-point scales anchored from "very likely" to "very unlikely," and were reverse coded.

**NOTE:** All factor loadings are significant (p < .01). All values derived from consumer attachment model N=345.

Smallest t-value for relationship variables is t = 13.25
## Appendix A-3

Classifications and Descriptive Statistics for Relationship Marketing Tactics

<table>
<thead>
<tr>
<th>Classic Marketing Tactics</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to a customer service help desk</td>
<td>2.43</td>
<td>1.20</td>
</tr>
<tr>
<td>Complimentary cab service in the event of car repair</td>
<td>3.65</td>
<td>1.22</td>
</tr>
<tr>
<td>Customer mailings providing category and brand information</td>
<td>2.82</td>
<td>0.94</td>
</tr>
<tr>
<td>Purchase rewards, e.g., service coupons at the time of car delivery</td>
<td>2.98</td>
<td>1.27</td>
</tr>
<tr>
<td>Invitations to public dealer events such as sales or new model introductions</td>
<td>3.35</td>
<td>1.17</td>
</tr>
<tr>
<td>Promotional mailings, e.g., end of year clearance events, financing specials</td>
<td>3.48</td>
<td>1.28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personalized and Intimate Relationship Marketing Advances</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Advanced Customer Care” telephone calls from a personal contact person after service experiences</td>
<td>3.51</td>
<td>1.22</td>
</tr>
<tr>
<td>General mailings about hobbies or personal interests without reference to brand or product</td>
<td>2.08</td>
<td>0.94</td>
</tr>
<tr>
<td>Invitations to talk with company executives and new product developers to share experiences, desires, and ideas</td>
<td>2.47</td>
<td>1.04</td>
</tr>
<tr>
<td>Invitations to special events without relation to the vehicle or product category, such as art exhibitions, poetry and book readings, concerts, etc.</td>
<td>2.81</td>
<td>1.15</td>
</tr>
<tr>
<td>Personalized invitation to be one a highly select group of customers invited to view and test drive new models</td>
<td>2.92</td>
<td>1.17</td>
</tr>
<tr>
<td>Surprise gifts to commemorate special personal events, e.g. birthdays</td>
<td>2.60</td>
<td>1.19</td>
</tr>
</tbody>
</table>

NOTE: Items measured with five-point scales anchored from “annoying” (1) to “something I would appreciate” (5)
Appendix A-4
Correlations between Constructs: Wave1 (N=230)

<table>
<thead>
<tr>
<th>Construct</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Satisfaction</td>
<td>.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Trust</td>
<td>.59</td>
<td>.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Loyalty</td>
<td>.49</td>
<td>.67</td>
<td>.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Secure Consumer Attachment: Embrace of Vulnerability</td>
<td>.22</td>
<td>.37</td>
<td>.31</td>
<td>.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Secure Consumer Attachment: Drive for Closeness</td>
<td>.08</td>
<td>.14</td>
<td>.20</td>
<td>.46</td>
<td>.56</td>
<td></td>
</tr>
<tr>
<td>6. Secure Personal Attachment</td>
<td>.15</td>
<td>.17</td>
<td>.10</td>
<td>.23</td>
<td>.09</td>
<td>.35</td>
</tr>
</tbody>
</table>

Appendix A-5
Correlations between Constructs: Longitudinal Study (N=272)

<table>
<thead>
<tr>
<th>Construct</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Satisfaction (t2)</td>
<td></td>
<td>.69</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Trust (t2)</td>
<td>.44</td>
<td>.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Loyalty (t2)</td>
<td>.49</td>
<td>.60</td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Secure Consumer Attachment: Embrace of Vulnerability (t1)</td>
<td>.30</td>
<td>.33</td>
<td>.20</td>
<td>.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Secure Consumer Attachment: Drive for Closeness (t1)</td>
<td>.15</td>
<td>.13</td>
<td>.11</td>
<td>.51</td>
<td>.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Relationship Proneness (t2)</td>
<td>.23</td>
<td>.35</td>
<td>.24</td>
<td>.21</td>
<td>.24</td>
<td>.40</td>
<td></td>
</tr>
<tr>
<td>7. Sociability (t2)</td>
<td>.05</td>
<td>.13</td>
<td>.10</td>
<td>-.01</td>
<td>.00</td>
<td>.13</td>
<td>.54</td>
</tr>
</tbody>
</table>

NOTE: All intercorrelations are significantly different from one. The average variance extracted for each construct is provided in the diagonal of the matrix. The notation in brackets indicates the time of measurement: t1 for wave 1 and t2 for wave 2, 20 months later.

NOTE: The average variance extracted exceeded the shared variance (squared correlations) with other constructs for all model constructs. Further, exploratory factor analysis yields a five (six in the longitudinal study) factor solution that replicates all model constructs except loyalty and trust which load on one factor.

\(^{a}\) The difference between this correlation and the one reported in the confirmatory factor analysis for secure consumer attachment is due to different samples. This analysis includes only those respondents who answered all personal and consumer attachment questions.