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Couple-Level Attachment Styles, Finances, and Marital Satisfaction:

Mediational Analyses among Young Adult Newlywed Couples

Xiaomin Li

The Hong Kong Polytechnic University

Melissa Curran

University of Arizona

Ashley B. LeBaron-Black

Brigham Young University

Bryce Jorgensen

New Mexico State University

Jeremy Yorgason

Brigham Young University

Melissa Wilmarth

The University of Alabama

Correspondence concerning this article should be addressed to Dr. Xiaomin Li, Department of Applied Social Sciences, The Hong Kong Polytechnic University, Hong Kong SAR, China. E-mail: xiaomin.li@polyu.edu.hk

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Abstract

Guided by the attachment theory and the Vulnerability-Stress-Adaptation (VSA) model, we used three-annual-wave, dyadic data from a nationally representative sample of 1,136 young-adult newlywed couples to investigate two research aims. First, we conducted a Latent Profile Analysis to identify couple-level attachment styles at Time 1 (i.e., within the first two years of marriage) based on the combination of husbands' and wives' attachment anxiety and attachment avoidance. Second, after conceptualizing couple-level attachment styles at Time 1 as vulnerability, we then examined whether finance-specific adaptive processes at Time 2 (i.e., one year after Time 1) mediated associations from couple-level attachment styles at Time 1 to marital satisfaction at Time 3 (i.e., one year after Time 2). Several findings are noteworthy. First, four different types of couple-level attachment styles were found. Second, for mediators, only perceived partner financial mismanagement mediated associations from couple-level attachment styles at Time 1 to marital satisfaction at Time 3. We discuss how the four different couple-level styles highlight the diversity and complexity in how the two partners' attachment anxiety and attachment avoidance combine together as well as why perceived partner financial mismanagement (i.e., the lack of adaptive processes) mediated associations between couple-level attachment styles and marital satisfaction.

Keywords: couple-level attachment style, marital satisfaction, perceived partner financial mismanagement, responsible financial behaviors, young adults

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Romantic attachment styles reflect internal working models of the self (i.e., whether individuals view themselves as valued and able to elicit others' support) and others such as the romantic partner (i.e., whether the partner is trustworthy and helpful) (Bowlby 1969; Mikulincer and Shaver 2012). Researchers have developed attachment orientations, with psychometric studies supporting the focus on two dimensions: *attachment anxiety* (i.e., negative models of self; positive models of partner) is the tendency to eschew self-reliance and establish a close union and responsive relationship with others, and (b) *attachment avoidance* (i.e., positive models of self; negative models of partner) is the tendency to rely on self and to alienate and to distrust the partner (Mikulincer and Shaver 2012). Insecure attachment orientations are characterized by high attachment anxiety *or* high attachment avoidance; secure attachment is characterized by low attachment anxiety *and* low attachment avoidance (Mikulincer and Shaver 2008).

As a personal trait that is often stable throughout the lifespan (Mikulincer and Shaver 2012), romantic attachment orientations can determine how individuals navigate multiple aspects of their lives (Markiewicz et al. 2006). Moreover, romantic attachment orientations may play especially salient roles for young adults (ages 18-30, Asamoah and Agardh, 2018; Lee et al. 2018), primarily given that romantic partners are often the most central attachment figure for young adults (Allen and Land 1999). To date, accumulative empirical evidence has shown associations between young adults' secure romantic attachment orientations and a series of desirable outcomes (e.g., good mental and physical health, and close interpersonal relationships; Caron et al. 2012; Ryan et al. 2007).

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In this study, we focused on associations between young adults' romantic attachment orientations and high relationship satisfaction¹, a desirable outcome specific to couple relationships. Specifically, couple relationship is a major context for personal development, and high relationship satisfaction promotes young adults' formation of adult identity (i.e., feeling like an adult and being recognized by others as an adult; the hallmark of achieving independent status) (Côté 2014; Li et al. 2019). Collectively, examining associations between romantic attachment orientations and young adults' relationship satisfaction has the potential to facilitate young adults' developmental journeys, a crucial issue as many young adults today are experiencing a delay in achieving adult status (Côté 2014).

To further extend the literature on associations between romantic attachment orientations and relationship satisfaction for young adults, two major gaps should be addressed. *First*, there is a point that attachment anxiety or attachment avoidance work *jointly* (vs. uniquely) as couple-level attachment styles in predicting marital satisfaction. Historically, when researchers in this field collected dyadic data, most of them conducted Actor-Partner Interdependence Models (APIMs; Kenny et al. 2006), aiming to fully account for the interdependence between two spouses when examining associations from one individual's romantic attachment orientations to their own and their partner's relationship satisfaction (actor and partner associations, respectively; Candel and Turliuc 2019). Moreover, and according to meta-analyses in multiple countries and across various couple relationship durations, negative actor and partner associations from high attachment anxiety and high attachment avoidance to low relationship

¹ In the literature review, we used two terms "relationship satisfaction" and "marital satisfaction" to refer to our outcome variables. The term "relationship satisfaction" is the broader term that refers to satisfaction regardless of relationship status, which is accurate given that existing studies (e.g., Li et al., 2020) were based on data from those in married *and* unmarried relationships. The term "marital satisfaction" is the more specific term that refers to relationship satisfaction among married couples, our sample population.

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satisfaction have been consistently documented among both male and female partners (Candel and Turliuc 2019; Li and Chan 2012). Yet existing studies using APIMs have ignored that the two partners' attachment anxiety or attachment avoidance can constellate into couple-level attachment styles that should relate to relationship satisfaction in the way that cannot be fully accounted for by either spouse's romantic attachment orientations. For example, one spouse with high attachment anxiety may either marry the other spouse with high attachment anxiety or with high attachment avoidance, but the relationship including one spouse with high attachment anxiety and the other spouse with high attachment avoidance may be one of lower relationship satisfaction (Fournier et al. 2011). Collectively, it is necessary to identify couple-level attachment styles-- or constellations of two spouses' attachment anxiety and attachment avoidance-- and how these couple-level attachment styles relate to marital satisfaction.

Second, to further understand the *processes* through which associations between romantic attachment styles and marital satisfaction unfold, researchers have examined potential *mediators* of these associations, including destructive behaviors and satisfaction-damaging perceptions (Candel and Turliuc 2019). Focusing on these processes, we proposed finance-specific behaviors and perceptions as important **explanatory mechanism (i.e., mediator)** between romantic attachment styles and marital satisfaction. In particular, finances are one of the most central topics in the daily lives of couples (Dew 2016; Totenhagen et al. 2018). Finance-specific behaviors and perceptions are associated with marital satisfaction, and such links may be especially salient among today's young adults who are experiencing several financial adversities yet enacting only modestly responsible money management behaviors (Dew 2016; Li et al. 2020). With respect to the associations between romantic attachment orientations and finance-specific behaviors and perceptions, finances reflect individuals' feelings of independence,

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security, and their value of self (Tang 2010); romantic attachment orientations determine how individuals view themselves and how they manage independence and maintain security (Mikulincer and Shaver 2012). Thus, romantic attachment orientations may have shaped the core beliefs behind how individuals manage and think about money. Yet, few studies have examined the mediating roles of finance-specific behaviors between romantic attachment styles and relationship satisfaction (for an exception, see Li et al. 2020).

Taken collectively, we used three-annual-wave, dyadic data collected from young-adult married couples to test the model proposed in Figure 1. We first explored couple-level attachment styles at Time 1 based on how two partners' attachment anxiety and attachment avoidance may combine (**Research Aim 1**). Relationships during young adulthood are still exploratory and marriage during young adulthood indicates the end of the exploration stage and the beginning of a relatively committed relationship to a romantic partner (Tanner 2006). Thus, and as the contribution of examining Research Aim 1, identifying couple-level attachment styles in young-adult couple relationships may answer a long-existing question proposed by prior researchers (e.g., Rosier and Munz 2015; Strauss et al. 2012): Which constellations of two spouses' attachment anxiety and attachment avoidance may exist in committed relationships.

Then we tested whether finance-specific behaviors and perceptions at Time 2 mediated associations from couple-level attachment styles at Time 1 to marital satisfaction at Time 3 (**Research Aim 2**). For the contribution of examining Research Aim 2, we established the understudied links from romantic attachment orientations to finance-specific behaviors and perceptions, aiming to extend the understanding of how core beliefs relate to the money management in couple relationships and in turn identify additional processes that promote young adults' marital satisfaction. Notably, we focused on the newlywed stage (i.e., first two years of

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marriage) among young adult couples. As levels of financial integration often increases after two partners marry (Hiekel et al. 2014), young adult newlyweds are in a transitory stage in which they are adapting to each other's increased influences on the couple's overall financial situation. Thus, each partner's finance-specific behaviors and perceptions should be especially predictive of marital satisfaction during this stage.

Theoretical Framework

We used attachment theory (Bowlby 1969; Mikulincer and Shaver 2012) and the Vulnerability-Stress-Adaptation model (VSA model; Karney and Bradbury 1995) as our theoretical frameworks. In attachment theory, three perspectives have been put forward to understand diverse couple-level attachment styles -- or constellations of the two partners' attachment styles-- in intimate relationships (Holmes and Johnson 2009; Strauss et al. 2012).

For *the complementary perspective*, individuals form a relationship with a partner who confirms their internal working models (Holmes and Johnson 2009). These potential couple-level attachment styles can a **mismatch** in the internal working models of self and others (Rosier and Munz 2015). For *the similarity perspective*, individuals prefer a partner who shares their romantic attachment styles (Holmes and Johnson 2009). The potential couple-level attachment styles in such relationships will be a congruency in the two spouses' reports on attachment anxiety and attachment avoidance (Strauss et al. 2012). For *the attachment-security perspective*, individuals prefer a partner who is high on security, regardless of their own attachment style (Holmes and Johnson 2009). These relationships can include at least one spouse with low attachment anxiety and low attachment avoidance (Keren and Mayseless 2013).

The part of the VSA model that is specific to vulnerability, adaptive processes, and outcomes provides guidance for the examination of associations among couple-level attachment

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styles, finance-specific behaviors and perceptions, and marital satisfaction. From the VSA model, *vulnerability* refers to enduring traits that each individual brings into the couple relationship (e.g., stable personality and childhood experiences). Couple-level attachment styles fit the conceptualization of vulnerability, given that (a) each partner's romantic attachment orientations are based on internal working models of self and others that were shaped by the pervasive and repeated interactions with caregivers during infancy (Bowlby 1969), and (b) romantic attachment orientations are often stable throughout the lifespan (assuming they are not disrupted by major life changes such as parental death; Mikulincer and Shaver 2012).

Next, *adaptive processes* refer to behaviors that are enacted to handle problems as well as individuals' perceptions of these behaviors; adaptive processes are dynamic and may vary across a series of factors including vulnerabilities (Karney and Bradbury 1995; Lavner and Bradbury 2019). In fact, Karney and Bradbury (1995) contended that "the backgrounds and traits that spouses bring to the marriage also affect adaptive processes (p. 24)." For the behavior component of finance-specific adaptive processes, we focused on financial behaviors, which refer to money-management behaviors such as spending, borrowing, saving, and budgeting (Dew and Xiao 2011). Also, responsible financial behaviors indicate *high* adaptive capabilities and *promote* relationship satisfaction, because those enacting more responsible financial behaviors experience fewer financial difficulties (for a review, see Sorgente and Lanz 2017). For the perception component of finance-specific adaptive processes, we focused on perceived partner financial mismanagement, which refers to individuals' perceptions of how spouses' financial behaviors shape the overall financial situation in the relationship. Further, high perceived partner financial mismanagement indicates the *lack of* adaptive capabilities and *hinders* relationship

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satisfaction, as this construct signifies that individuals believe their partners' saving, budgeting, and borrowing have caused or intensified financial strains and difficulties (Britt et al. 2017).

Collectively, vulnerability shapes an individual's well-being via adaptive processes: (Karney and Bradbury 1995). High levels of enduring vulnerability limit partners' capabilities to adapt to specific problems, and the diminished adaptive processes in turn relate to low relationship satisfaction (Karney and Bradbury 1995). As such, and seen in Figure 1, we proposed a mediational model: couple-level attachment styles (vulnerabilities) → finance-specific behaviors and perceptions (adaptive processes) → marital satisfaction (outcomes).

Finance-Specific Behaviors/Perceptions and Marital Satisfaction

The associations from financial behaviors and perceived partner financial mismanagement to marital satisfaction have been supported by existing literature. In particular, individuals reported improved relationship satisfaction after they and their romantic partners had learned more responsible financial management strategies (Zimmerman and Roberts 2012). On the contrary, when two partners enact less responsible financial behaviors, their financial situation gets worse, which then increases relationship distress (Conger et al 2010; Sorgente and Lanzv 2017). Further, researchers consistently reported associations from high perceived partner financial mismanagement to low conjugal happiness (Britt et al., 2017; Curran et al., 2018). In addition, and based on a small number of longitudinal studies, partner financial mismanagement can even predict the over-time decreases in relationship satisfaction in the next two to three years (Li et al. 2019).

Romantic Attachment Styles and Finance-Specific Behaviors/Perceptions

Despite the theoretical justification, only a small number of studies has used cross-sectional data from individuals in romantic relationships to provide empirical evidence for linear

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associations from high attachment anxiety and high attachment avoidance to individuals' own less responsible financial behaviors (Jorgensen et al. 2017; Li et al. 2020). Specifically, individuals with high attachment anxiety or/and high attachment avoidance engage in less responsible financial behaviors (Jorgensen et al. 2017; Li et al. 2020). As an explanation, individuals with high attachment avoidance/anxiety compensate the insecure emotional bonds with materialism (i.e., the tendency to demonstrate one's own worthiness with possessions and money; Sun et al. 2020). High materialism in turn relates to less responsible financial behaviors (e.g., impulsive spending and saving little; Waston 2003).

However, the lack of studies based on dyadic, longitudinal data has limited the examination on (a) whether associations between romantic attachment styles and responsible financial behaviors unfold across time, and (b) how responsible financial behaviors vary across couple-level attachment styles (i.e., the constellation of both spouses' attachment anxiety and attachment avoidance). The lack of studies on associations from couple-level attachment styles to responsible financial behaviors may be an especially notable limitation, as couple-level attachment styles (a) can predict how two partners communicate (especially around challenging topics such as finance) (Feeney 2016) and (b) in turn possibly relate to whether the two partners can obtain more responsible financial behaviors via open and meaningful interpartner conversations around finance (Romo 2015).

Few studies have empirically tested the links between romantic attachment styles and perceived partner financial mismanagement. Yet, some preliminary speculations can be proposed. As individuals with high attachment avoidance are generally self-reliant and self-defensive (Mikulincer and Shaver 2012), they should devalue their partner and perceive that the partner has caused negative financial consequences. Individuals with high attachment anxiety

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may doubt their own worthiness and lack confidence in their partners' willingness to stay in the relationships, with such belief then creating hypersensitivity to threatening cues (Holmes and Rempel 1989). Instead of focusing on the positive, individuals with high attachment anxiety may pay more attention to the negative influence of the partner's financial behaviors.

Methods

Participants and Data Collection

Data in the present study were taken from the Couple Relationships and Transition Experiences (CREATE) project, a longitudinal study that was based on a nationally representative sample of newlyweds (i.e., couples who were married for two years or less). With the procedure approved by all appropriate Institutional Review Boards and relevant state agencies required by law and research ethics, a two-stage cluster stratification sample design was used to recruit participants. Stage 1 involved a sample of counties, and stage 2 involved a sample of newlyweds within the selected counties. Counties were selected using a probability proportion to size (PPS) design and based on county population size, marriage, divorce, and poverty rates, and the racial-ethnic distribution of the county. This design yielded a final sampling frame of 11,960 newlywed couples across 239 counties. To be included, the age for at least one partner in the couple should be 18-36 at the start of the study; at least one partner in the couple should be in their first marriage; the couple should live in the U.S. Most of couples in the study were married during 2014 (90%), with the remainder getting married in 2013 (4%) and 2015 (6%). Recruitment at Time 1 started in 2015 September and ended in 2017 February. Upon the completion of the online survey at each time, each spouse received a \$50.00 gift card as a compensation for time (for a detailed depiction of procedure, see AUTHORS, under review).

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To date, the three-annual-wave assessments have been completed with the CREATE sample, and we used data at all three time points in the current study (T1/2/3 for Time 1/2/3 hereafter). At T1 (i.e., within the first two years of marriage), 1,896 newlywed couples (with both partners agreeing to participate) completed the survey. As the present study focused on young adults only, we included couples in which both spouses were aged 18-30 years old at the time of marriage. To note, we only included different-sex couples, as the small number (i.e., 33 couples) and low proportion (i.e., 2.8%) of same-sex newlyweds has prevented the examination of the research questions among same-sex couples (details discussed in the Limitations and Future Directions section).

The current sample included 1,136 young-adult newlywed couples at T1 (detailed sample descriptions are in Table 1). Among the 1,136 couples, at least one partner from 1,036 couples (retention rate = 91.2%) completed the survey at T2 (i.e., one year after T1); at least one partner from 987 couples (retention rate = 86.8%) completed the survey at T3 (i.e., one year after T2). To detect attrition biases, we compared the 963 couples who provided a valid response at all three assessments versus the other 173 couples for whom the response was missing at T2 or/and T3. We conducted a MANOVA on the key study constructs at T1 and control variables at T1 (the full list of variables included in MANOVA can be seen Table 2). No noteworthy differences emerged (partial η^2 s < .01; Richardson 2011), indicating that the missingness was at random.

Measures

Romantic attachment at T1. We used the 12-item, short-form Experiences in Close Relationship Scale (ECR; Wei et al. 2007) to assess husbands' and wives' *attachment anxiety* and *attachment avoidance* at T1. One of the six items for attachment anxiety was "I need a lot of reassurance that I am loved by my partner"; one of the six items of attachment avoidance was "I

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want to get close to my partner, but I keep pulling back.” Participants indicated the extent to which each item described themselves on a 7-point Likert scale from 1 (*absolutely untrue*) to 7 (*absolutely true*). With reverse items recoded, we averaged all six items to calculate the scale score for attachment anxiety and attachment avoidance. Higher scores indicated higher levels of attachment anxiety and attachment avoidance. Cronbach’s α s for husbands were .71/.85 for attachment anxiety/attachment avoidance; Cronbach’s α s for wives were .72/.84 for attachment anxiety/attachment avoidance.

Responsible financial behaviors at T2. We selected 7 items from the 15-item Financial Management Behavior Scale (Dew and Xiao 2011), because our sample is a nationally representative one including couples of diverse socioeconomic statuses (SESs) and these selected items assessed financial behaviors that were common across different SESs (Xiao 2008). For each item, participants indicated how often they engaged in various financial behaviors and responded on a 5-point Likert scale ranging from 1 (*never*) to 5 (*always*). The first three items measured cash management behaviors such as “paid all your bills on time.” The next two items measured credit management behaviors such as “paid off credit card balance in full each month.” The final two items measured saving behaviors such as “began or maintained an emergency savings fund.” With reverse items recoded, we averaged all seven items to calculate scale scores. Higher scores indicated more responsible financial behaviors. Cronbach’s α s were .78/.76 for husbands/wives.

Perceived partner financial mismanagement at T2. The five-item perceived partner financial mismanagement scale was developed by researchers from another project (i.e., the Flourishing Families Project; see Day and Padilla-Walker (2009) for a detailed description). For each item, participants indicated their agreement on a 7-point Likert scale from 1 (*very strongly*

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disagree) to 7 (*very strongly agree*). Example items were “My partner is too controlling with our finances,” “My partner makes purchases that are too expensive for our budget,” and “My partner manages money well (reverse).” With relevant reverse items recoded, we averaged all five items to calculate the scale score. Higher scores indicated more perceived partner financial mismanagement. Cronbach's α s were .70 for each of the spouses.

Marital satisfaction at T1 and T3. We used the 4-item Couple Satisfaction Index (CSI; Funk and Rogge 2007) to assess husbands' and wives' marital satisfaction at T1 and T3. For the first three items, participants were asked to rate “how satisfied” they were in their relationship, “how rewarding” their relationships were, and whether or not they had a “warm and comfortable” relationship with their partner; these items were measured on a six-point scale from 0 (*not at all*) to 5 (*completely*). On the last item, participants were also asked to select their “degree of happiness” on a scale from 0 (*extremely unhappy*) to 6 (*perfect*). We averaged all four items to calculate the scale score. Higher scores indicated higher marital satisfaction. Cronbach's α s were: .93 at T1 and T3 for husbands; .94/.95 at T1/T3 for wives.

Control variables. All covariates were assessed at Time 1. For each couple, *before-marriage cohabitation* was assessed with a binary variable (0 = did not cohabit with the current partner before marriage vs. 1 = cohabited with the current partner before marriage). *Parental status* was assessed with two dummy codes. The first dummy code was: 0 = neither pregnant nor have children versus 1 = pregnant. The second dummy code was 0 = neither pregnant nor have children versus 1 = having children. *Gross annual household income* was assessed using an ordinal variable ranging from 1 (\$0-\$9,999) to 15 (\$140,000-\$149,999). For each spouse, *marriage history* was assessed with a binary variable (0 = in the first marriage vs. 1 = married before). *Education* was assessed using an ordinal variable ranging from 1 (Less than high school)

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to 7 (Advanced degree such as Ph.D.). *Race/ethnicity* was assessed using four dummy codes (0 = White vs. 1 = Black; 0 = White vs. 1 = Asian; 0 = White vs. 1 = Latino; 0 = White vs. 1 = other race/ethnicity). *Religious status* was assessed using three dummy codes (0 = not religious vs. 1 = Protestant; 0 = not religious vs. 1 = Catholic; 0 = not religious vs. 1 = other religion). *Employment* was assessed by asking how many hours each participant worked every week (i.e., responses were recoded into 0 for those who were unemployed).

Analytic Plan

Analyses were conducted in the following three stages and in Mplus 8.3. We used the full information maximum likelihood (FIML) method to handle missingness, which generates more accurate estimation for longitudinal data in comparison to a listwise approach that includes only those who completed the survey at all three waves (Lee et al. 2019). Analyses were proceeded in two stages for each research aim: (a) taking person-centered approach and conducting Latent Profile Analysis (LPA; Collins and Lanza 2010) to identify couple-level attachment styles, and (b) using these couple-level styles identified from LPA as the predictors in pathway analyses.

We followed the two-stage procedure because person-centered approaches regard the sample was inherently heterogeneous with respect to the totality of all key components that jointly explain focal phenomena (Bauer and Shanahan 2007). In addition, person-centered approaches examine the complex interactive effects among all key components in shaping specific outcomes (Flaherty and Kiff 2012; Henry et al. 2005). As such, and using person-centered approach, we can (a) clarify the subgroups of couples who share characteristics of husbands' and wives' attachment anxiety and avoidance, and (b) examine effects of couple-level attachment styles by detecting between-group differences in finance-specific behaviors and perceptions as well as marital satisfaction.

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Although conducting a four-way interaction (i.e., husbands' attachment anxiety × husbands' attachment avoidance × wives' attachment anxiety × wives' attachment avoidance) may also be an option, we decided against this four-way interaction. To explain a significant higher-order interaction such as a four-way interaction, the recommended step is to choose an arbitrary standard (e.g., *Mean* ± 1 *SD* to represent three levels: high, moderate, and low) and plot all combinations formed by different levels of each construct (Bauer and Shanahan 2007). Following this rationale, 81 combinations emerge in this four-way interaction. Yet not all 81 combinations of husbands' and wives' attachment avoidance and anxiety may actually exist in the sample. Collectively, in comparison to the traditional four-way interaction, our approach more accurately describes the diverse couple-level attachment styles within young-adult newlyweds. Notably, the exploratory nature of person-centered analyses (i.e., latent profile analysis in our study) prohibits a priori hypotheses on which subgroups will emerge; instead, this paradigm examines the existing diversity in a given sample and categorizes the whole sample into subgroups accordingly (Oberski 2016).

Stage 1: Latent profile analysis (Research Aim 1). As the recommended statistical tool for person-centered analysis, LPA (a) uses model fit indices to determine the number of subgroups objectively, and (b) considers classification errors and therefore increases the accuracy of classification (Howard and Hoffman 2018). Following recommendations by Weller et al. (in press), we included the following statistical indices to determine the optimal number of profiles: log likelihood (LL), Akaike information criterion (AIC), Bayesian information criterion (BIC), sample-size-adjusted BIC (ABIC), Lo-Mendell-Rubin likelihood ratio test (LMRT), bootstrap likelihood ratio test (BLRT), and entropy. Lower LL, AIC, BIC, and ABIC values indicate a better fitting-model. VLMRT and BLRT provide a statistical test for whether the

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addition of one more latent class improves the overall model fit. Entropy ranges from 0 to 1 and denotes an adequate separation of profiles. Higher entropy (*i.e.*, .80 or above) is preferred as it suggests a clearer delineation of profiles. In addition to the statistical indices, model interpretability is an even more important criterion to select the optimal model (Weller et al., in press). In the selected model, each profile needs to add to a common theme and provide substantively differential meanings.

Stage 2: Pathway analyses and indirect effects calculation (Research Aim 2). In the second stage, a mediational model in Figure 1 was specified to test associations among couple-level attachment styles at T1 (*i.e.*, identified using LPA from Research Aim 1), responsible financial behaviors at T2, perceived partner financial mismanagement at T2, and marital satisfaction at T3. We estimated the autoregression of marital satisfaction at T3 on marital satisfaction at T1, and such lagged design *allowed* us to partial out the over-time stability in marital satisfaction and better illustrate how couple-level attachment styles and finance-specific adaptive processes predict marital satisfaction across time (Roth and MacKinnon 2012). Notably, we included all mediators in one model according to existing studies (Cao et al. 2019; Cobb et al. 2001), aiming to test the relative contributions of each specific mediator and then examine which mediator plays more salient roles than others (Taguri et al. 2018). We also included an extensive set of control variables (as discussed in the Measures section).

In line with existing studies that included categorical variables as predictors in a mediational model, we recoded couple-level attachment styles identified using LPA before adding this construct in the model (for a similar strategy, see Carlo et al. 2018). Moreover, the Helmert coding method was selected for recoding, given its flexibility to make multiple

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comparisons among different levels of the categorical variables (for a review, see Hayes and Monyota 2017).

Based on the results of the pathway analyses, we calculated specific indirect effects using bootstrap methods. As bootstrapping is a nonparametric method that does not assume the normal distribution of indirect effects, inflated type I and type II errors along with the skewed distribution can be adjusted (Preacher and Hayes 2008). Bias-corrected bootstrapped Standard Errors (SEs) and Confidence Intervals (CIs) were based on 5,000 bootstrap resamples (Preacher and Hayes 2008). Conclusions about the statistical significance of indirect pathways were based on the 95% bias-corrected bootstrapped CIs around the unstandardized indirect associations.

Results

In Table 2, we displayed the descriptive analyses for the key study constructs, bivariate correlations among the key study constructs, as well as bivariate correlations between the key study constructs and the control variables.

Research Aim 1: Couple-Level Attachment Styles Identified Using Latent Profile Analysis

To determine the optimal number of latent profiles, we examined solutions with one to five profiles, because models with six or more profiles no longer converged. Model fit indices are in Table 3. For models with one to five profiles, LL, AIC, BIC, and ABIC continuously decreased. Instead, the results of VLMRT demonstrated that the five-profile solution did not fit better than the four-profile solution, but the four-profile solution fit significantly better than the three-profile solution (Weller et al., in press). Also, the four-profile solution generated meaningful profiles and therefore obtained a substantial contribution to theoretical interpretability (Weller et al., in press). Collectively, the four-profile solution stands out as the optimal one.

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We then assigned profile labels (see Figure 2). In the first profile, husbands and wives both reported relatively low attachment anxiety and attachment avoidance on ECR. The first profile was labeled as “Similarity of secure attachment” (P1) and is 70.2% of the sample. In the second profile, husbands reported relatively high attachment anxiety and high attachment avoidance, whereas wives reported high attachment anxiety coupled with low attachment avoidance. The second profile was labeled as “Complementary husband avoidant” (P2) and is 12.1% of the sample. In the third profile, husbands reported relatively high attachment anxiety coupled with low attachment avoidance, whereas wives reported high attachment anxiety and high attachment avoidance. This third was labeled as “Complementary wife avoidant” (P3) and is 9.6 % of the sample. In the fourth profile, husbands and wives both reported high attachment anxiety and high attachment avoidance. The fourth profile was labeled as “Similarity of insecure attachment” (P4) and is of 8.1% of the sample. Of note, the “Similarity of secure attachment” profile (P1) is the only profile characterized by secure attachment; the other three profiles all indicated insecure attachment while being characterized by different combinations of husbands’ and wives’ reports on attachment anxiety and attachment avoidance.

Research Aim 2: Pathway Analyses and Indirect Effects

Pathway Analyses. As indicated in the Analytic Plan section, we used Helmert coding to create three indicators based on the four profiles identified for Research Aim 1. The three indicators were then used to predict responsible financial behaviors at T2, perceived partner financial mismanagement at T2, and marital satisfaction at T3. Pathways from *Indicator 1* suggested the differences in mediators and outcomes between secure P1 (i.e., “Similarity of secure attachment”) and the average level of the other three insecure profiles (P2, P3, and P4). Pathways from *Indicator 2* suggested the differences in mediators and outcomes between the

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matched, insecure P4 (i.e., “Similarity of insecure attachment” profile) and the average level of unmatched, insecure P2 and P3 (i.e., “Complementary husband avoidant” and “Complementary wife avoidant”, respectively). Pathways from *Indicator 3* suggested the differences in mediators and outcomes between P2 and P3.

The model fit the data adequately: $\chi^2(16) = 99.291, p < .001$; CFI = .951; RMSEA = .068; SRMR = .015 (for the criterion of adequate fit; see Kline 2015). Coefficients for statistically significant pathways are in Figure 3.

For pathways from the three indicators at T1 to responsible financial behaviors to T2 and perceived partner financial mismanagement at T2, several patterns emerged. First, specific to Indicator 1 [i.e., the comparison between “Similarity of secure attachment” (P1) and the combination of all the other three insecure profiles], husbands and wives of the secure P1 reported more responsible financial behaviors and less perceived partner financial mismanagement than their counterparts of all other three insecure profiles.

Second, specific to Indicator 2 [i.e., the comparison between “Similarity of insecure attachment” (P4) and the combination of “Complementary husband avoidant” (P2) and “Complementary wife avoidant” (P3)], husbands and wives of the matched, insecure P4 reported less responsible financial behaviors and more perceived partner financial mismanagement than their counterparts of the unmatched, insecure P2 and P3.

Third, specific to indicator 3 [i.e., the comparison between “Complementary husband avoidant” (P2) and “Complementary wife avoidant” (P3)], differences were found for wives but not for husbands. Wives of the P2 reported more responsible financial behaviors and less perceived partner financial mismanagement than their counterparts of P3.

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For pathways from responsible financial behaviors and perceived partner financial mismanagement at T2 to marital satisfaction at T3, significant associations existed between perceived partner financial mismanagement at T2 and marital satisfaction at T3 only. Husbands' and wives' perceived partner financial mismanagement at T2 were associated negatively with their own marital satisfaction at T3. In addition, wives' perceived partner financial mismanagement at T2 were associated negatively with husbands' marital satisfaction at T3.

Indirect Effects. We next used bootstrap estimation to calculate all 24 indirect effects from the three indicators created from the couple-level attachment styles at T1 to husbands' and wives' marital satisfaction at T3 (6 via husbands' responsible financial behaviors at T2, and 6 via the wives' responsible financial behaviors at T2, 6 via husbands' perceived partner financial mismanagement at T2, and 6 via the wives' perceived partner financial mismanagement at T2).

Coefficients for statistically significant indirect effects are in Table 4. Based on the bootstrap estimation, five out of all 24 indirect effects (20.83%) were statistically significant. These indirect effects were small-to-medium in effect size (standardized coefficient from .01 to .09, Kenny 2012). None of these significant indirect effects were from responsible financial behaviors (0/12 = 0%); in contrast, the five indirect pathways were from the 12 indirect pathways via perceived partner financial mismanagement (5/12 = 41.7%).

Discussion

For many, finances are considered a symbol of power, independence, and security (Tang 2010). Given the central role of finances in couple relationships, it is important to understand how responsible financial behaviors and perceived partner financial mismanagement are associated with marital satisfaction. Relying on the VSA model (Karney and Bradbury 1995) and extending it with attachment theory (Bowlby 1969; Mikulincer and Shaver 2012), couple-level

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attachment styles were hypothesized to be a vulnerability that might affect how partners manage their money and how they perceive their partners' management of that money. More importantly, we anticipated that finance-specific behaviors and perceptions would impact satisfaction experienced in the relationship. Using longitudinal data, these associations were examined. Our findings have some important insights in the fields of attachment, couple relationships, and financial management.

Couple-Level Attachment Styles among Young-Adult Newlyweds

We used a person-centered approach (i.e., Latent Profile Analysis) to identify couple-level attachment styles. Results indicated that there were two matched profiles (P1 and P4) and two mismatched profiles (P2 and P3). Overall, these four different couple-level styles highlight the diversity and complexity in how two partners' attachment anxiety and attachment avoidance may combine together.

Notably absent from this sample were any couples who supported the *attachment-security perspective* (Keren and Mayseless 2013) in which an insecure person actively seeks out somebody low in attachment anxiety and attachment avoidance as a secure base. Instead, these couple-level attachment styles strongly support the *complementary perspective* and somewhat corroborate the *similarity perspective* (Holmes and Johnson 2009). Supporting previous research (Kirkpatrick & Hazan 1994), this finding suggests that those who are insecurely attached have found a partner who is also insecurely attached rather than trying to seek security through their partners.

Supporting the *similarity perspective*, whether secure or insecure, the two partners in the majority of couples were very similar in terms of attachment (70.2% for P1 in which both partners were low in anxiety and avoidance; 8.1% for P4 in which both partners were high in

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anxiety and avoidance). Not only do these findings mirror studies suggesting that about 70% of the population is securely attached (Mikulincer and Shaver 2012), it also appears that people feel comfortable partnering with those who are similar in how they engage in relationships.

Although much smaller percentages, the remainder of the sample (21.7% when combining P2 and P3) included couples who supported the *complementary perspective*, and it is also interesting to note out that P2 and P3 was of very similar percentage in the whole sample. To note, P2 and P3 is of very similar percentage (12.1% and 9.6% for P2 and P3, respectively). Indeed, in reviewing sex differences specific to attachment styles from around the world, these effect sizes are typically small (see Del Giudice, 2019). Among both males and females, those with a negative view of themselves may initially be attracted to the self-reliance of an avoidant person because they do not possess this confidence themselves. Conversely, someone with high avoidance and the associated difficulties in trusting others may be drawn to a partner who is higher in attachment anxiety and relies on other people (Feeney 2016; Holmes and Johnson 2009; Overall 2019). Also, such mismatches may lead to a typical pursue-withdrawal pattern in which the person with high anxiety tries to engage the other whereas the partner high in avoidance partner withdraws (Feeney 2016; Overall 2019; Rosier and Munz 2015).

Associations Among Couple-Level Attachment Styles, Finances, and Relationship

Satisfaction

There were several indirect pathways via perceived partner financial mismanagement. In this way, the VSA model is an appropriate model to use in that couple-level attachment styles (vulnerability) predicted marital satisfaction (outcome) via shaping finance-specific adaptive processes (perceptions of partner) (Karney and Bradbury 1995).

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Moreover, it is consistent with prior studies that the “Similarity of secure attachment” couples (P1) fared the best (Feeney 2016; Tang 2010). As noted earlier, money management is a salient (i.e., related to power, independence; Tang 2010) but also an especially difficult topic in couple relationships. As those with secure attachments typically trust themselves and others and can clearly communicate their needs and feelings with their partners (Feeney 2016), the secure-secure couples may feel comfortable to openly discuss their finances. Such open and meaningful conversations around finance in couple relationships have the potential to (a) promote each spouse’s capability to responsibly manage finances, and (b) clarify each spouse’s role in managing the overall financial situation in couple relationships (Romo 2015). As a consequence, both partners in secure-secure couples can responsibly manage money and perceive low levels of financial mismanagement of the partner. Their marital satisfaction is also bolstered.

On the contrary, the aforementioned open and meaningful conversations around finance can be challenging if neither spouse was of secure attachment (i.e., P2/P3/P4), which in turn may lead to the two partners’ less responsible financial behaviors, more perceived partner mismanagement, and lower marital satisfaction (Romo 2015). Here, we focus more generally on the patterns of the couple-level attachment styles than more specifically on gender differences in P2 and P3, given that effect sizes for gender differences in attachment styles around the world are typically small, as noted above (Del Giudice 2019).

In particular, high avoidance individuals may withdraw from conversations with their partner, possibly due to the tendency to be self-reliant; for individuals with high attachment anxiety, their controlling and intrusive attempts (due to the feeling of insecurity) will also impede the interpartner conversations (Feeney 2016; Mikulincer and Shaver, 2008). Notably, and as the potential explanation for why we found “Similarity of insecure attachment” couples

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fares the worst, both spouses enact withdrawing (due to high attachment avoidance) as well as controlling and intrusive attempts (due to high attachment anxiety). Thus, it is especially hard for “Similarity of insecure attachment” couples to have open and meaningful conversations around finance. However, and among “Complementary husband avoidant” and “Complementary wife avoidant” couples, it may be possible that the spouse of high attachment avoidance tends to withdraw yet the other spouse attempts to move the conversations forward (Feeney 2016; Overall 2019). In this way, the “Complementary husband avoidant” and “Complementary wife avoidant” couples may be somewhat able to communicate around finance, albeit not as openly and meaningfully as among “Similarity of secure attachment” couples.

With respect to the adaptive processes from the VSA model, we found perceived partner financial mismanagement played a more salient role than responsible financial behaviors in mediating the associations between couple-level attachment orientations and marital satisfaction. Perceived partner financial mismanagement (i.e., the perceptual portion of adaptive process and the indicator for the lack of adaptive capability) was associated with low marital satisfaction, whereas responsible financial behaviors (i.e., the behavioral portion of adaptive process and the indicator for high adaptive capability) did not predict marital satisfaction. Moreover, when examining the indirect effects, perceived partner financial mismanagement played a central role in connecting couple-level attachment styles to marital satisfaction, yet none of the indirect effects via responsible financial behaviors were significant. Such findings are consistent with those in earlier studies (Britt et al. 2008, 2017; Li et al. 2019).

Several explanations are proposed to explain why we found perceived partner financial mismanagement to play a more salient role than responsible financial behaviors. First, and according to literature on cognition in couple relationship, perceptual confirmation existed in

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couple relationships (McNulty and Karney 2002). That is, once a partner formed specific appraisal or perceptions on the other, the partner tends to disregard the behaviors the other enacted and focus on evidence strengthening the already formed appraisal or perception only, which explained why **perception of** the spouse matters more than spouses' behaviors in predicting marital satisfaction (McNulty and Karney 2002). Second, individuals are relatively self-interested in the beginning stages of marriage (Rusbult et al. 1998). When evaluating how satisfied they were in the relationships, individuals in the early stage of marriage focused primarily on whether they benefited from the relationship. If they identified costs to stay in the relationship (i.e., high perceived partner financial mismanagement in this study), marital satisfaction decreased (Rusbult et al. 1998). Third, the bad may be stronger than the good (Baumeister et al. 2001). When we included perceived partner's financial mismanagement (i.e., the indicator for lack of adaptive capability) and responsible financial behaviors (i.e., the indicator of high adaptive capability) in the same model, it is the negative aspect that was the significant mediator.

To note, patterns for significant associations among couple-level attachment styles (vulnerability), finance-specific behaviors and perceptions (adaptive processes), and marital satisfaction (outcome) were relatively consistent among husbands and wives. The only gender difference emerges when comparing the two mismatched profiles: For wives only, the "Complementary husband avoidant" profile predicted more responsible financial behaviors, less perceived partner financial mismanagement, and in turn higher marital satisfaction in comparison to the "Complementary wife avoidant" profile. The gender difference in financial literacy (Hasler and Lusardi 2017) may provide one speculative explanation for this finding. Specifically, males are often socialized to possess more skills, knowledge, confidence, and self-efficacy in

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money management than females (Hasler and Lusardi 2017). “Complementary husband avoidant” couples include wives who deem their partners as reliable, which is consistent with the gender difference in financial literacy. On the contrary, wives in “Complementary wife avoidant” profile devalue their partners, which contradicts the gender difference in financial literacy. In comparison to their counterparts in “Complementary wife avoidant” profile, wives in “Complementary husband avoidant” profile are more willing to rely on husbands’ suggestions and solutions for finance-specific issues. Therefore, wives in the “Complementary husband avoidant” profile can benefit from husbands’ financial literacy and learn more responsible financial behaviors; they also perceive less partner mismanagement and in turn experience higher marital satisfaction due to the tendency to trust their husbands.

Limitations and Future Research Directions

Several limitations and future directions in the study should be noted. First, data in the present study were collected exclusively via self-report survey for all study constructs; thus, our results may be biased by the self-serving and social desire biases. Second, same-sex couples were a small number and percentage (i.e., 33 couples and 2.8% of the sample), preventing us from including same-sex couples in the study or running analyses on same-sex couples and heterosexual couples in separate models. Specifically, in the *interchangeable dyads model*, the parameters of the two same-sex partners are fixed to be equal; yet in the *non-interchangeable dyads model*, the parameters of two different-sex partners are *not* fixed to be equal; Olsen and Kenny 2006; Sadler et al. 2011). In the future, we recommend that researchers obtain an adequate sample size of same-sex couples (i.e., 300 or above for person-centered analyses and 100 or above for pathway analyses; Kline 2015; Weller et al. in press) to revisit the possibility

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that associations among romantic attachment orientations, finance, and relationship satisfaction are consistent across different sexual orientations.

Third, all couples in the larger project were in the beginning stage of their marriage. **On the one hand**, conducting longitudinal studies on newlywed couples allows researchers to examine factors facilitating or hindering adjustments during the transition to marriage. On the other hand, marriage has become a privilege for those in better-off situations (Furstenberg, 2014), and our study may have ignored individuals and couples in more economically disadvantaged status. In fact, some individuals may have to delay the decision to marry due to financial concerns including large amounts of debt or lack of adequate income (Addo et al. 2019; Smock et al., 2005). Moreover, and due to assortative mating, those in an adverse financial situation may be paired with a spouse who also faces financial challenges, which further intensifies financial insecurity for both partners (Boertine and Permanyer 2019; Dokko et al. 2015). Thus, and for a potential future direction, researchers may oversample unmarried couples and then more thoroughly investigate how money management in couple relationships and the decision to marry can vary across both partners' multiple indicators of financial situations [e.g., income and education, measured in our study; debt, measured in Addo et al.'s (2019) study; difficulties in paying utilities and rent, measured in Curran et al.'s (2021) and LeBaron et al.'s (2020)].

Theoretical and Practical Implications

For theoretical implications, this study provides evidence of financial behaviors and perceptions (as adaptive processes) between attachment (vulnerability) and relationship satisfaction (outcomes). Specifically, the results suggest that although couple attachment styles are associated with both financial behaviors and perceptions of partner's behaviors, only

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perceptions of partner's behaviors help explain why attachment is linked with relationship satisfaction. Thus, attachment and couple finance theorists should consider these results and results from other studies which have repeatedly found that when it comes to relationship outcomes, perceptions of one's partner are more salient than one's self-reported behaviors (Britt et al. 2008 2017; Li et al. 2019). The current study expands this pattern to the link between attachment and relationship satisfaction: again, it is perceptions that drive these links. Future studies can explore financial behaviors and perceptions as adaptive processes between other relational and financial vulnerabilities and other relational and financial outcomes. Also, future work can also explore other adaptive processes that may link attachment vulnerability with relationship outcomes. This study also demonstrates the importance of using both dyadic data and person-centered analyses, because as we found, the two partners' attachment styles may combine in distinct ways, and these combinations can explain financial behaviors, perceptions, and marital satisfaction in a more nuanced way.

For practical implications, our findings may be used by clinicians and educators in relational and financial fields. To begin with, it should be noted that the two spouses' perceptions on each other's financial mismanagement do not totally align with each other's self-report behaviors (demonstrated as the significant yet small sized associations under the note section of Figure 3: $\beta = -.19, p < .001$ between husbands' perceived partner financial mismanagement and wives' responsible financial behaviors; $\beta = -.26, p < .001$ between wives' perceived partner financial mismanagement and husbands' responsible financial behaviors). **Instead, the two spouses' perceptions on each other's financial mismanagement are colored by the enduring personal characteristics (i.e., couple-level attachment styles).** Thus, when couple relationship therapists identify husbands' and wives' perceptions of each other's financial mismanagement as

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one of reasons behind low relationship satisfaction, therapists should first check whether the perceptions are because of two spouses' less responsible financial behaviors or are due to the insecure attachment. If insecure attachment is the reason, therapists can alleviate the negative perceptions and increase relationship satisfaction by helping insecurely attached clients seek security in relationships.

Additionally, our findings support the idea that family life education courses should include relational as well as financial information. Specifically, family life educators should include information about the interconnected nature of attachment, financial behaviors, partner perceptions, and relationship outcomes in their curricula (Rappleyea et al. 2014). They could also give partnered students self-evaluations to take home about attachment style (Wei et al. 2007) and similarity of money scripts (Klontz et al. 2011) and can encourage partnered students to have conversations about their financial behaviors, perceptions, etc. College and university degrees that focus on family relationships should include courses on money management that teach students how to manage their own money well and prepare students to navigate shared finances, as negative perceptions of partner's financial behavior are linked with negative relationship outcomes (Britt et al. 2017; Curran et al. 2018; Li et al. 2019).

Conclusion

Drawn from the VSA model and attachment theory, we used three-annual-wave, dyadic data from a nationally representative sample of 1,136 young-adult newlywed couples. The findings from the current study provide evidence of couple-level attachment combinations among young adult newly married couples. Further, this is one of the first studies to link attachment styles to perceived financial management in a national sample of young married couples. Lastly, the current study provides longitudinal evidence that couple-level attachment

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combinations can impact marital satisfaction two years later via perceived partner financial mismanagement. Findings from this study point to important implications for young adult married couples, as well as to educators and clinicians that work with them.

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Table 1 Description of the final sample ($N = 1,136$ couples)

	For each couple	
Before-marriage cohabitation		
Yes	71.2%	
No	28.8%	
Marital history		
First marriage for both spouses	82.8%	
Remarriage for husbands	8.9%	
Remarriage for wives	8.3%	
Parental status		
Neither pregnant nor have child	47.4%	
Pregnant but having no child	7.5%	
Have one child	24.1%	
Have two children	10.3%	
Have three or more children	10.8%	
	For husbands	For wives
Age at marriage	$M = 25.4$ ($SD = 3.0$) years	$M = 24.2$ ($SD = 3.10$) years
Race/ethnicity		
White	69.6%	68.7%
Black	8.1%	6.1%
Asian	3.2%	4.2%
Latino	13.5%	13.8%
Other race/ethnicity	7.6%	7.2%
Highest degree	Median = some college	Median = some college
Monthly income	Median = \$40,000-\$49,000	Median = \$40,000-\$49,000
Religion		
No religion	17.2%	17.0%
Protestant	50.0%	50.5%
Catholic	18.3%	19.7%
Other religion	14.5%	12.8%
Working hours per week	$M = 41.6$ ($SD = 15.1$) hours	$M = 30.6$ ($SD = 18.2$) hours

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Table 2 Descriptive analyses and bivariate correlation ($N = 1,136$ couples)

	1	2	3	4	5	6	7	8	9	10	11	12
Key study constructs												
1 Attachment anxiety (T1-H)												
2 Attachment avoidance (T1-H)	.43											
3 Attachment anxiety (T1-W)	.40	.41										
4 Attachment avoidance (T1-W)	.26	.40	.42									
5 Perceived partner financial mismanagement (T2-H)	.25	.27	.15	.16								
6 Perceived partner financial mismanagement (T2-W)	.22	.21	.26	.28	.33							
7 Responsible financial behaviors (T2-H)	-.14	-.13	-.11	-.15	-.27	-.32						
8 Responsible financial behaviors (T2-W)	-.12	-.11	-.14	-.20	-.21	-.39	.63					
9 Marital satisfaction (T1-H)	-.46	-.63	-.36	-.43	-.32	-.24	.15	.12				
10 Marital satisfaction (T1-W)	-.37	-.50	-.48	-.64	-.23	-.33	.17	.19	.63			
11 Marital satisfaction (T3-H)	-.28	-.31	-.19	-.23	-.28	-.22	.18	.14	.47	.32		
12 Marital satisfaction (T3-W)	-.21	-.24	-.22	-.27	-.19	-.36	.19	.22	.33	.41	.60	
Covariates (all assessed at T1)												
13 Before-marriage cohabitation ^{ref = no}	.03	.05	.08	.12	.05	.11	-.13	-.17	-.04	-.08	-.09	-.10
14 Pregnancy ^{ref = neither pregnant nor have child}	-.04	-.06	-.02	-.06	.00	.03	.04	.03	.06	.04	.06	.01
15 Have children ^{ref = neither pregnant nor have child}	.10	.15	.11	.19	.08	.13	-.24	-.27	-.13	-.16	-.13	-.19
16 First marriage or remarriage (H) ^{ref = first marriage}	.00	.04	.12	.03	.00	-.02	-.05	-.05	-.01	-.06	-.05	-.05
17 First marriage or remarriage (W) ^{ref = first marriage}	.03	.07	.03	.10	-.01	.02	-.05	-.05	-.03	-.07	-.01	-.11
18 Age at marriage (H)	.00	.00	-.02	.02	.06	-.01	.03	.02	-.02	-.03	-.12	-.05
19 Age at marriage (W)	.01	-.02	-.07	.03	.07	.01	.01	-.002	-.01	-.03	-.10	-.07
20 Black (H) ^{ref = white}	.04	.07	-.01	.07	.04	.08	-.11	-.13	-.08	-.08	-.06	-.12
21 Asian (H) ^{ref = white}	.04	-.03	-.01	.02	.04	-.02	.08	.09	.03	.00	.04	.02
22 Latino (H) ^{ref = white}	.02	.00	.01	.04	.003	.11	-.09	-.08	.01	-.06	.01	-.04
23 Other race/ethnicity (H) ^{ref = white}	.03	.04	.03	.03	-.02	.02	-.04	-.01	-.03	-.02	-.01	-.02
24 Black (W) ^{ref = white}	.09	.04	-.01	.09	.01	.06	-.10	-.13	-.08	-.09	-.07	-.12
25 Asian (W) ^{ref = white}	-.02	-.04	-.02	-.04	.00	-.07	.13	.17	.04	.05	.05	.07

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26 Latino (W) ^{ref = white}	.04	-.03	.01	.01	-.02	.09	-.09	-.12	.02	-.02	.01	-.05
27 Other race/ethnicity (W) ^{ref = white}	-.03	.01	.04	.03	.04	.08	-.03	-.02	.00	-.02	.02	-.01
28 Highest degree (H)	-.09	-.09	-.07	-.12	-.01	-.17	.34	.30	.05	.13	.08	.16
29 Highest degree (W)	-.07	-.11	-.09	-.10	-.01	-.10	.28	.25	.08	.09	.04	.10
30 Monthly income (H)	-.03	-.04	-.03	-.03	.01	-.06	.27	.27	.01	.02	-.04	.07
31 Monthly income (W)	-.06	-.06	-.06	-.06	-.01	-.08	.26	.28	.06	.05	-.04	.06
32 Protestant (H) ^{ref = no religion}	.04	.03	.05	.03	-.01	.01	.000	.004	-.03	-.05	.01	-.04
33 Catholic (H) ^{ref = no religion}	.01	-.06	-.08	-.01	.02	.06	.01	-.01	.04	.01	.01	.03
34 Other religion (H) ^{ref = no religion}	-.04	-.01	-.01	-.05	.01	-.06	.05	.06	.01	.02	.02	.03
35 Protestant (W) ^{ref = no religion}	.01	.03	.03	.05	.04	.02	-.01	.000	-.03	-.03	.02	-.05
36 Catholic (W) ^{ref = no religion}	.01	-.05	-.07	-.04	-.02	.01	.03	-.001	.04	.02	.01	.05
37 Other religion (W) ^{ref = no religion}	-.04	-.01	.03	-.07	-.01	-.04	.04	.05	.02	.03	.04	.03
38 Employment (H)	.00	.01	-.04	.01	.02	.05	.01	.01	.02	.02	-.05	-.07
39 Employment (W)	-.01	-.06	-.09	-.09	.07	-.03	.10	.12	.06	.09	-.04	.04
<i>Mean</i>	2.66	1.96	2.84	1.80	2.52	2.58	3.49	3.52	4.28	4.32	3.96	3.98
<i>SD</i>	1.17	1.01	1.21	.97	.82	.86	.89	.85	.99	.98	1.06	1.12

Note. Bolded are correlations that were significant at $p < .05$ (two-tailed) level. T1 = Time 1, T2 = Time 2, T3 = Time 3, H = husbands, W = wives, and Ref = reference groups for binary variables or dummy codes.

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Table 3 Comparisons of models for latent profile analysis ($N = 1,136$ couples)

Profile Numbers	Log Likelihood	AIC	BIC	ABIC	Entropy	VLMRT	BLRT	<i>n</i> per Profile
1	-6784.875	13585.750	13626.032	13600.621	--	--	--	1,136
2	-6282.882	12591.763	12657.222	12615.930	.902	.0000	.0000	901, 235
3	-6138.580	12313.160	12403.795	12346.621	.890	.0000	.0000	834, 130, 172
4	-6026.849	12099.698	12215.509	12142.454	.912	.0043	.0000	797, 138, 109, 92
5	-5971.080	11998.160	12139.148	12050.211	.876	.2310	.0000	728, 86, 93, 66, 163

Note. The bolded entries represent the fit statistics of the selected solution in the current study.

AIC = Akaike information criterion, BIC = Bayesian information criterion, ABIC = sample-size-adjusted BIC, LMRT = Lo-Mendell-Rubin likelihood ratio test, and BLRT = bootstrap likelihood ratio test.

Table 4 Significant indirect effects calculated based on bootstrap estimation ($N = 1,136$ couples)

	Bootstrap estimates for indirect effects		
	Unstandardized	95% CI	Standardized
Panel A: Indirect effects to husbands' marital satisfaction at T3			
Indicator 1 (i.e., P1 vs. the mean of P2, P3, & P4) → husbands' marital satisfaction at T3 <i>via husbands' perceived partner financial mismanagement at T2</i>	.073	[.032, .122]	.029
Indicator 2 (i.e., P4 vs. the mean of P2 & P3) → husbands' marital satisfaction at T3 <i>via husbands' perceived partner financial mismanagement at T2</i>	-.070	[-.127, -.022]	-.017
Panel A: Indirect effects to wives' marital satisfaction at T3			
Indicator 1 (i.e., P1 vs. the mean of P2, P3, & P4) → wives' marital satisfaction at T3 <i>via wives' perceived partner financial mismanagement at T2</i>	.161	[.093, .242]	.060
Indicator 2 (i.e., P4 vs. the mean of P2 & P3) → wives' marital satisfaction at T3 <i>via wives' perceived partner financial mismanagement at T2</i>	-.131	[-.236, -.044]	-.029
Indicator 3 (i.e., P3 vs. P4) → wives' marital satisfaction at T3 <i>via wives' perceived partner financial mismanagement at T2</i>	.084	[.005, .158]	.018

Note. T1 = Time 1, T2 = Time 2, and T3 = Time 3. P1 = Similarity of secure attachment, P2 = Complementary husband avoidant, P3 = Complementary wife avoidant, and P4 = Similarity of insecure attachment.

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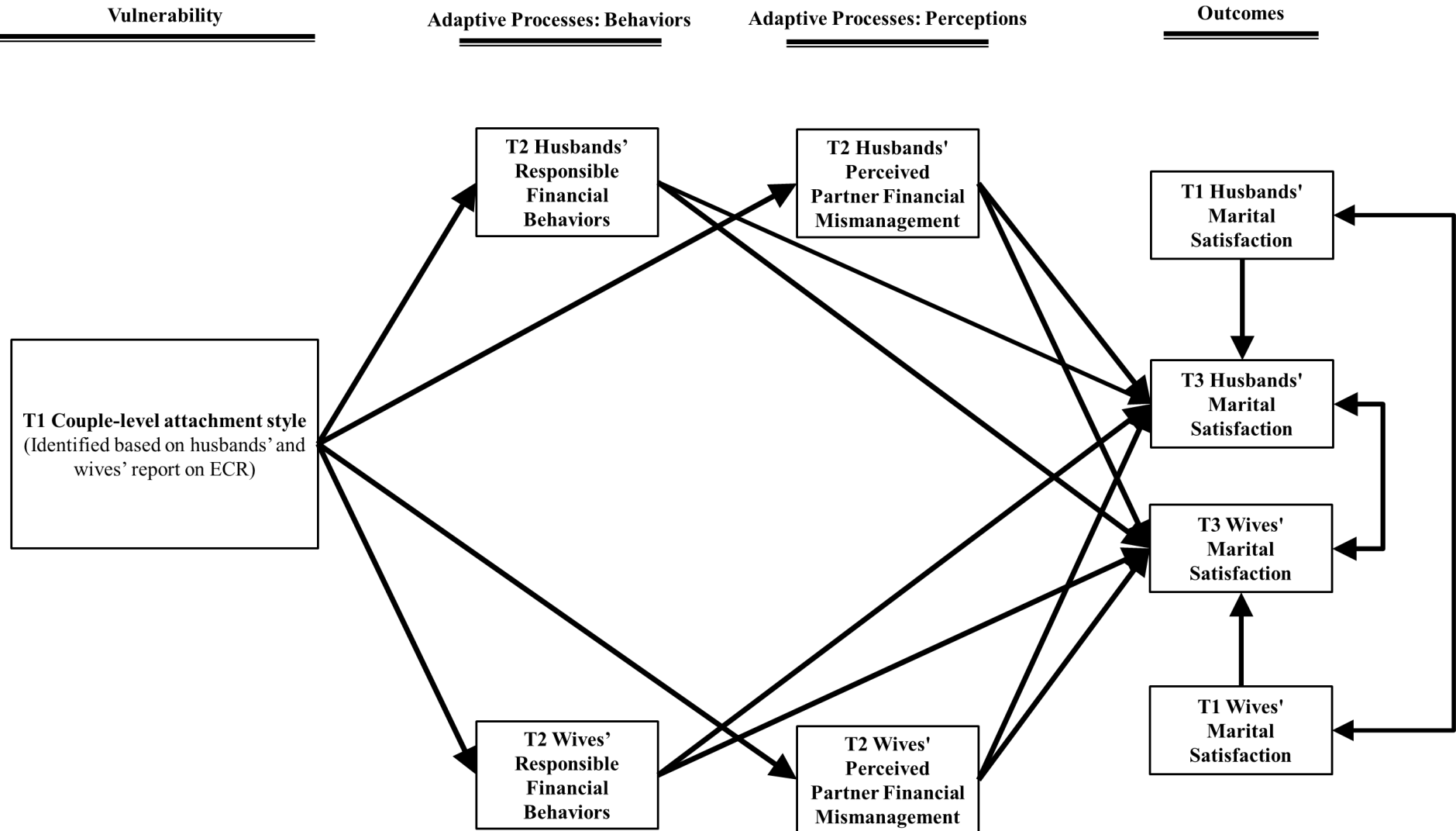


Figure 1 Conceptual Model ($N = 1,136$ couples)

Note. ECR = Experiences in Close Relationships Scale, T1 = Time 1, T2 = Time 2, and T3 = Time 3. Control variables (all assessed at Time 1) included before-marriage cohabitation and parental status for each couple as well as husbands' and wives' first marriage or remarriage, age at marriage, race/ethnicity, income, education, religion, and employment. Covariance among the four mediators (i.e., husbands' and wives' responsible financial behaviors and perceived partner financial mismanagement) will be estimated but not displayed in the figure.

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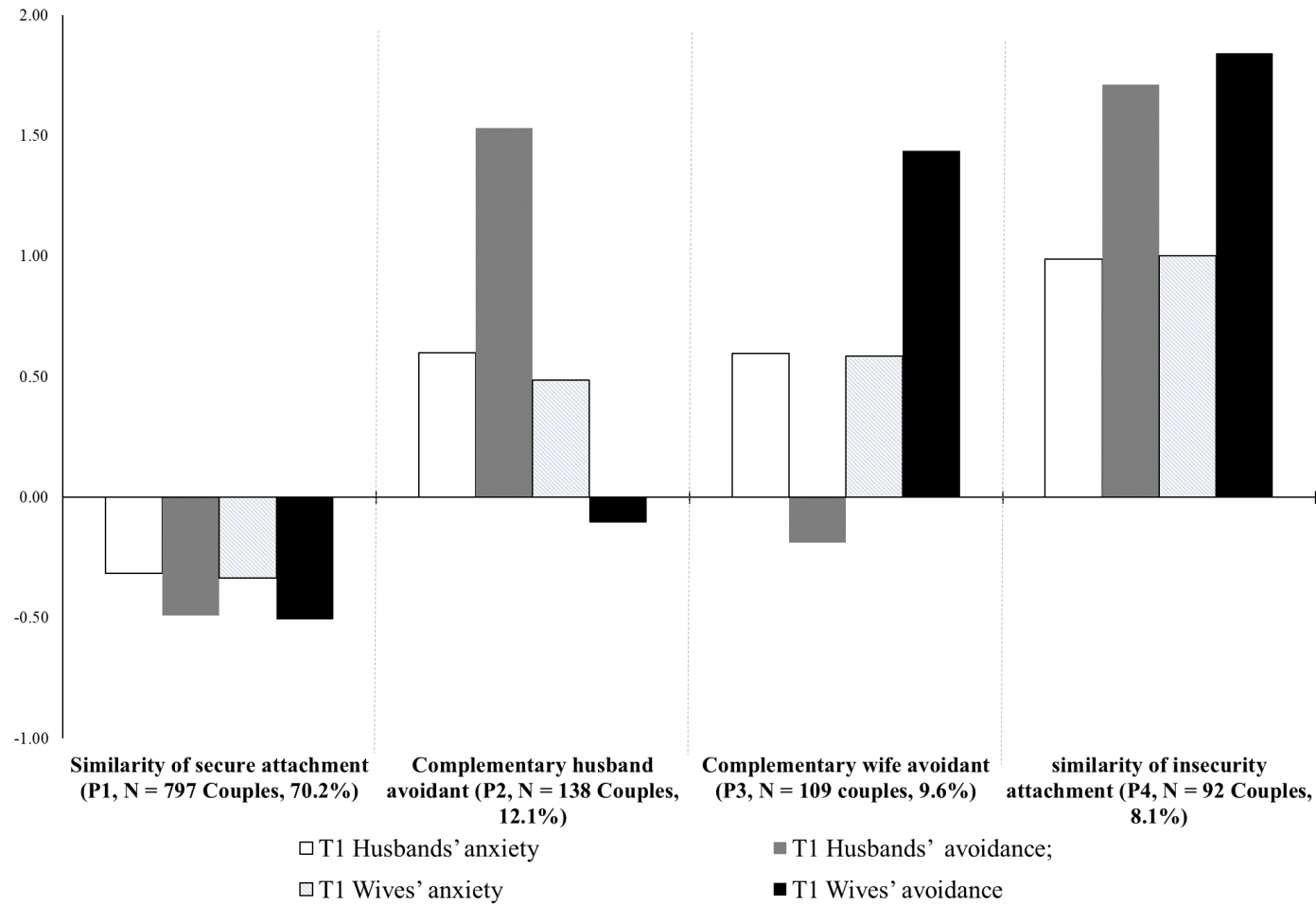


Figure 2 Couple-level attachment styles identified using Latent Profile Analysis ($N = 1,136$ couples)

Note. The y-axis in the figure is the standardized score for husbands' and wives' report on the Experiences in Close Relationships Scale. To this end, 0 represents the average across the whole sample; positive scores indicate high levels above the average; negative scores indicate low levels below the average.

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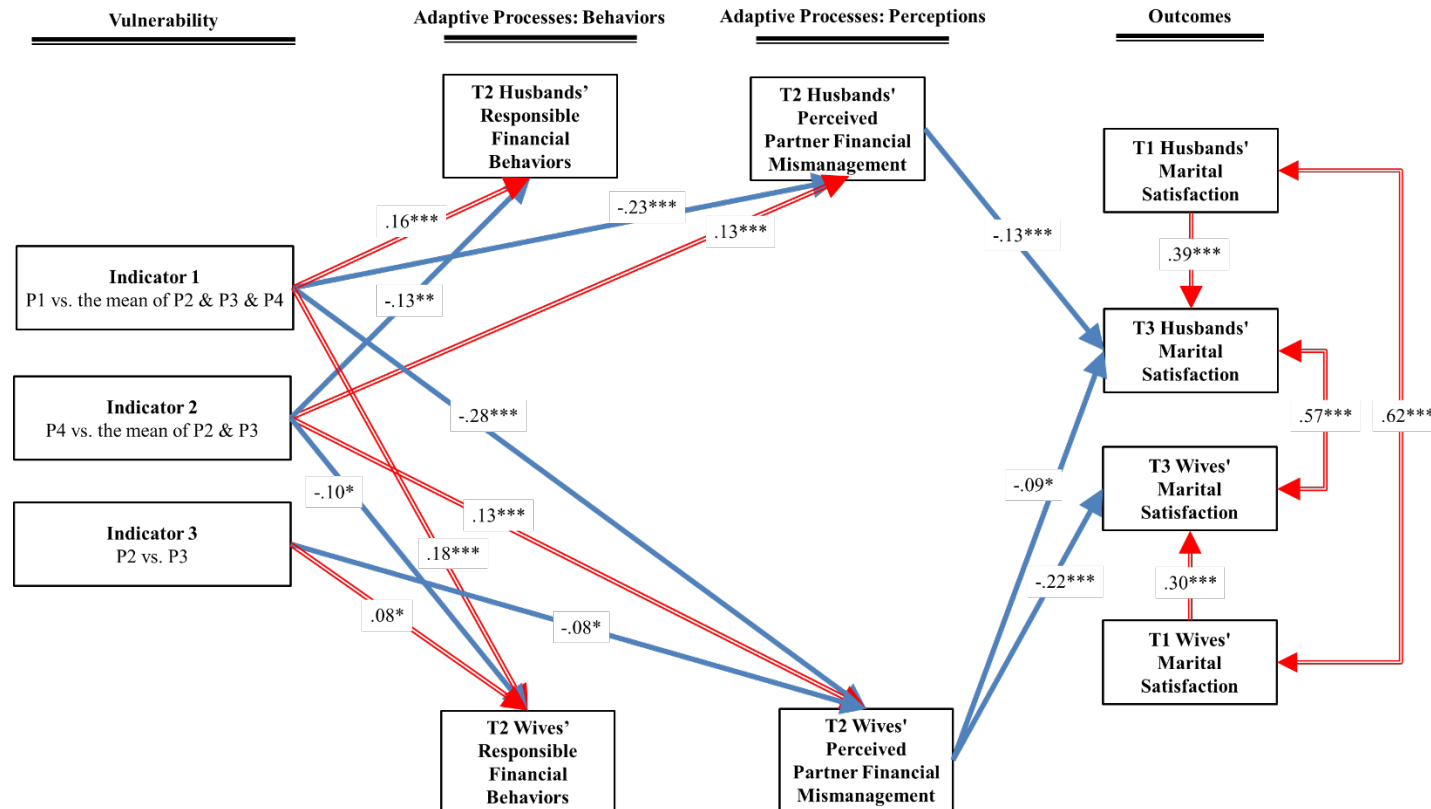


Figure 3 Results for pathway analyses ($N = 1,136$ couples)

Note. T1 = Time 1, T2 = Time 2, and T3 = Time 3. P1 = Similarity of secure attachment, P2 = Complementary husband avoidant, P3 = Complementary wife avoidant, and P4 = Similarity of insecure attachment. * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed).

Control variables (all assessed at Time 1) included before-marriage cohabitation and parental status for each couple as well as husbands' and wives' first marriage or remarriage, age at marriage, race/ethnicity, income, education, religion, and employment.

For clarification, (a) presented are standardized coefficients; (b) pathways for parameter estimates with $p > .05$ are not presented; (c) pathways for positive associations with $p < .05$ level are depicted as →; (d) pathways for negative associations with $p < .05$ are displayed as →; (e) standardized coefficients for covariance among mediators at Time 2 were: $-.26$ ($p < .001$) between husbands' perceived partner financial mismanagement and husbands' responsible financial behaviors; $-.34$ ($p < .001$) between wives' perceived partner financial mismanagement and wives' responsible financial behaviors; $-.19$ ($p < .001$) between husbands' perceived partner financial mismanagement and wives' responsible financial behaviors; $-.26$ ($p < .001$) between wives' perceived partner financial mismanagement and husbands' responsible financial behaviors; $.63$ ($p < .001$) between husbands' and wives' responsible financial behaviors; $.30$ between husbands' and wives' perceived financial mismanagement.