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2014-10-12

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Original Publication Citation

Jensen, T.M.*, Willoughby, B.J., Holman, T., Busby, D.M., & Shafer, K. (2015). "Associations Between Family and Interpersonal Processes and Emerging Adult Marital Paradigms: Does Adult Attachment Mediate?" *Journal of Adult Development*, 22(1): 50-62.

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Jensen, Todd M.; Willoughby, Brian J.; Holman, Thomas B.; Busby, Dean M.; and Shafer, Kevin, "Associations Between Family and Interpersonal Processes and Emerging Adult Marital Paradigms: Does Adult Attachment Mediate?" (2014). *Faculty Publications*. 4405.
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Associations Between Family and Interpersonal Processes and Emerging Adult Marital Paradigms: Does Adult Attachment Mediate?

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Published online: 12 October 2014
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Abstract Current research on predictors of marital attitudes highlights the importance of family and interpersonal processes, yet fails to identify which factors are more important and whether there are mediators that help to conceptually simplify the process by which such attitudes are influenced. We examine the influence of family-of-origin quality and past romantic relationships on three specific marital paradigms, as well as the mediating role adult attachment may play in these associations. We used a sample of 1,210 single heterosexual males (23 %) and females (77 %), age 18–30 years, who took the READY assessment. Results indicated that family-of-origin quality, attachment style, and past romantic relationships are all associated with emerging adult marital paradigms, with attachment avoidance having the most significant overall relationship with the outcomes. Results also indicated that adult attachment acts as a significant mediator between family/interpersonal processes and marital paradigm outcomes. Conclusions, limitations, and implications are discussed.

Keywords Adult attachment · Emerging adulthood · Family of origin · Marital paradigms · Past relationship influence

Introduction

In the context of familial and marital demographics, there have been increases in the age at first marriage, and greater openness to cohabitation, divorce, and non-marital child bearing (Amato et al. 2007; Thornton and Young-DeMarco 2001). Such changes might stem, in part, from the noticeable shifts in marital attitudes over the last few decades. These shifts include decreases in viewing marriage as a path to happiness, seeing marriage as a priority, and one's willingness or intention to commit to a marital relationship, among other attitudinal shifts (Bogle and Wu 2010; Thornton and Young-DeMarco 2001). In addition to possible changes in family demographics, emerging adult (Arnett 2000) attitudes toward marriage are associated with a number of significant behavioral and relational outcomes, such as family formation values, substance use patterns, and sexual permissiveness (Clarkberg et al. 1995; Hall 2006; Carroll et al. 2007; Willoughby and Dworkin 2009; Hall 2012).

The potential life-altering implications of marital attitude formation on young adults, as just discussed, have led many researchers to examine factors which influence how these attitudes are formed and altered. Some scholars have investigated the influence of various socio-demographic factors such as age, gender, and educational aspirations (Cherlin 2004; Willoughby 2010), while others have attempted to explain variation in attitudes about marriage in terms of family and interpersonal process variables (Carnelley and Janoff-Bulman 1992; Risch et al. 2004; Cunningham and Thornton 2006; Willoughby and Carroll

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2010; Willoughby et al. 2011). Yet, there remains a paucity of research examining the possible mechanisms that underlie *how* such predictors influence, create, and/or change emerging adults' attitudes about marriage.

The purpose of this study is to add clarity to the marital paradigm formation process by introducing adult attachment as a mediating mechanism between family and interpersonal process variables and emerging adult marital attitudes. We pay particular attention to marital attitudes found to be important during emerging adulthood, such as those dealing more broadly with marital timing and importance (Carroll et al. 2007). Given available data and previous empirical findings, we focus on two dimensions of marital beliefs, permanence and salience, which are core components of the marital paradigm theory framework (Willoughby et al. 2013). We begin by overviewing marital paradigm theory, summarizing family and interpersonal process research as it relates to marital attitude formation, and overviewing adult attachment and its association with relationship attitudes.

Marital Paradigm Theory

A proliferating body of marital attitude research has furthered the need for a unifying theory. In recent work, Willoughby et al. (2013) have solidified a more universal framework for the conceptualization and empirical examination of marital attitudes and beliefs—the so-called *marital paradigm theory*. With guidance from past conceptual and theoretical work (Hall 2006; Carroll et al. 2007), this framework identifies six specific dimensions of marital beliefs that appear to categorize many of the variables and constructs studied in the marital attitude literature. These dimensions are marital timing (expectations regarding the marital transition), marital salience (the level of importance one places on marriage), marital context (expectations regarding requisite conditions prior to marriage), marital processes (expectations regarding marital interaction), Marital Permanence (expectations regarding how permanent marital relationships are or will be), and marital centrality (how central one believes their marital relationship will be after marrying). Furthermore, marital paradigm theory posits that marital attitudes and beliefs can be organized into two broad belief systems—beliefs about *getting* married, and beliefs about *being* married. We employ this theoretical framework as a means to maintain congruity with the current marital attitude literature, as well as to better explain why the marital beliefs we examine are significant and noteworthy.

Family and Interpersonal Processes

In addition to theory development, researchers have explored the association between marital paradigms and distal factors, such as family-of-origin characteristics

(family processes), as well as more proximal factors, such as past romantic relationship influences and experiences (interpersonal processes). Regarding family processes, some researchers have found that parents often support or encourage their emerging adult children to delay marriage as they pursue higher education (Willoughby et al. 2012). Additionally, Willoughby et al. (2011) found that parental views on ideal marital timing and marital importance were positively associated with how their young adult children reported on these same measures, suggesting the intergenerational transmission of marital paradigms. Another study indicated that adolescent males who reported higher quality relationships with their fathers believed they were less likely to divorce than adolescent males who did not report having a quality relationship with their father (Risch et al. 2004). This influence was not found to be significant among female adolescents, suggesting that gender might also be an important factor to consider in marital paradigm formation. It should be noted, however, that the influence of distal family-of-origin factors on marital paradigm formation tends to diminish as one reaches the age of 18 or older (Cunningham and Thornton 2006; Willoughby et al. 2012).

In terms of interpersonal processes, Willoughby and Carroll (2010) found that both virgin status and the number of sexual partners significantly influenced the attitudes that emerging adults form toward various transitions in committed relationships, with sexually experienced individuals holding more positive attitudes toward cohabitation. Furthermore, Carnelley and Janoff-Bulman (1992) examined the formation of relationship attitudes—general relationship optimism and marital optimism specifically. They found that recent positive romantic involvements were associated with general relationship optimism, whereas experiences with love in various family-of-origin relationships (parent–child relationships and parental relationships) were associated with marital optimism. They also found that secure attachment orientations were associated with both general relationship *and* marital optimism.

Adult Attachment and Relationship Attitudes

It remains clear that both family and interpersonal processes matter in terms of how marital or relationship attitudes are influenced. What appears less clear is which type of processes are more influential, and whether or not those influences are solely direct, or if there are mediating mechanisms involved that can clarify the way we conceptualize the marital paradigm formation process. One potential mechanism between family/interpersonal processes and marital attitudes is the attachment orientation of the individual while in emerging adulthood. Attachment theorists suggest that human beings have an innate need to connect to others (Bowlby 1969/1982). Starting in infancy,

individuals are believed to begin forming cognitive and affective representations of the self and others (known as an internal working model), such that relationships with attachment figures/caregivers are formatively seen as either an emotional secure base and safe haven, emotionally untrustworthy and unsafe, or an ambiguous mix of the two (Ainsworth et al. 1978; Bowlby 1988). This results in variations of anxious and avoidant attachment styles, conceptualized as two distinct continuous phenomena (Fraley and Spieker 2003), with anxiety being indicative of distrust, worry, and hypersensitive affective and interpersonal characteristics, and avoidance being indicative of general emotional evasion and an apparent preference for relational and emotional independence.

In this theoretical context, individuals' internal working models are believed to be shaped over time by caregiving/attachment-figure relationships, most commonly found in one's family of origin, and by subsequent romantic relationships (Bowlby 1988; Mikulincer and Shaver 2007). These adjustments to one's internal working model, and thus attachment style, have been shown to be linked to a plethora of interpersonal, cognitive, and behavioral outcomes (Mikulincer and Shaver 2007). In terms of relationship attitude formation specifically, researchers have found that those with anxious orientations are more likely to fear relationship dissolution, but also tend to view relationships as a means to attaining emotional rescue or salvation (Carnelley and Janoff-Bulman 1992; Hazan and Shaver 1987; Whitaker et al. 1999). Those with more avoidant orientations have been found to view romantic relationships more pessimistically, with a limited to non-existent belief in love as an enduring component of long-term relationships (Hazan and Shaver 1987).

Therefore, an association between adult attachment and marital paradigm formation appears probable. As a result, it is reasonable to explore adult attachment as a possible predictor of marital paradigms, as well as a mediator between family and interpersonal processes and marital paradigms. One's internal working model influences how individuals view themselves and others, especially with regard to romantic relationships. As one's internal working model forms and adapts in response to relational experiences and stimuli (i.e., family-of-origin relationships, past romantic relationships), it might further create, change, or substantiate beliefs about future committed relationships.

Current Study

As shown above, family and interpersonal processes, along with adult attachment, appear to be important components in emerging adult marital paradigm formation, or in the formation of general relationship attitudes. In addition to the empirical contributions in this area, important

conceptual and theoretical frameworks for exploring marital paradigms have been introduced in the literature. We employ the use of these frameworks and contribute to the existing literature in three important ways. First, we examine the relative strength between family-of-origin quality (FQ), or distal factors, and past relationship influence (PRI) and adult attachment, or more proximal factors, in predicting three marital paradigm variables while accounting for other important covariates. Second, we examine adult attachment as a mediator between FQ, PRI, and such paradigms, as the research referenced earlier demonstrates that adult attachment is both a product of family and interpersonal processes, as well as a predictor of relationship attitudes. Third, by conducting these examinations, we can partially explain and conceptually clarify the process by which marital paradigms are formed in emerging adults as a result of family and interpersonal processes.

We now introduce two specific hypotheses. Because some researchers have found that distal family-of-origin factors become less influential in terms of marital paradigm formation in young adulthood (Cunningham and Thornton 2006; Willoughby et al. 2012), our *first hypothesis* is that proximal factors, such as PRI and adult attachment, are more influential than distal factors, such as FQ, in how marital paradigms are formed. Our *second hypothesis* is that adult attachment serves as a meaningful mediating mechanism through which both FQ and PRI influence marital paradigm formation. Figure 1 displays our hypothesized mediation model.

Methodology

Sample and Procedures

The sample for this study was drawn from a secondary dataset gathered by the RELATE Institute, a data-collection project with approval from the authors' university institutional review board (RELATE: Busby et al. 2001). RELATE is an online couple assessment tool intended to help couples understand areas of strength and weakness in their relationship. However, individuals who were not in a committed romantic relationship during the time they completed the online assessment were provided the READY assessment. The READY assessment is online and consists of 200 plus questions that assess an individual's readiness for a committed romantic relationship. Such measures include assessments of adult attachment, FQ and functioning, risk behaviors, attitudes about marriage, etc. The psychometric properties of READY scales and items have been assessed and established in previous studies (for details see Busby et al. 2001). Participants were made aware of the online assessment primarily via a university instructor, a clinician

Fig. 1 Theoretical mediation model illustrating the hypothesized relationships between observed variables and latent constructs. *Note* Both exogenous variables are also correlated with all control variables. These paths have been omitted to retain greater figure

clarity. Observed variables 1 through 3 represent the Marital Advantage construct indicators described in the methods section, while observed variables 4 through 6 represent the Marital Priority construct indicators

or family life educator, or their own online searching. All individuals who complete the READY survey receive a post-survey report that highlights key findings from their assessment. While READY is widely used in clinical settings, researchers also use these data for scholarly purposes.

The sample chosen was limited to include only heterosexual males and females between the ages of 18 and 30 ($M = 22$, $SD = 3.18$) who took the READY assessment after the marital scales were added, so between October 2008 and September 2012. Our final sample consisted of 1,210 individuals, 77 % of whom were female. Sixty-eight percent of the sample was Caucasian, 14 % African American, 6 % Asian, 4 % Latino, 4 % designated “Mixed/Biracial,” and 2 % designated “Other.” Sixty-nine percent of the sample was enrolled in college, 4 % had an Associate’s degree, 8 % had a Bachelor’s degree, 11 % were enrolled in graduate school, 4 % had a graduate or professional degree, and 1 % had completed some college but not currently enrolled. Very few had only a high school diploma, GED, or dropped out of high school. In terms of religious affiliation, 32 % of the participants were Protestant, 24 % were Catholic, 9 % were Latter-Day Saints (Mormon), 2 % were Jewish, 1 % were Islamic, 1 % Buddhist, 13 % were members of “another

religion,” and 17 % were not affiliated with any religion. Because the READY project does not employ a recruitment strategy and the participants recruited reflect a non-probability sample, sample characteristics are not representative of national averages. As a result, study findings might not be fully generalizable to the full population of interest—a limitation we discuss in greater detail later. We also acknowledge that while online data collection is efficient and capable of reaching geographically dispersed populations, it is not without limitations (see Lefever et al. 2007).

Measures

Marital Permanence

Marital Permanence captured how individuals perceived marriage in terms of expected duration and assessed the extent to which participants were nervous about approaching marriage due to the perception that marital relationships are fragile and prone to dissolution. The following item was used which best approximated this construct: “The fear of divorce makes me nervous about getting married.” Participants were asked to indicate how

well that statement described them, and response options ranged from 1 = Strongly Disagree to 5 = Strongly Agree. This item was reverse coded so that higher values indicated higher Marital Permanence.

Marital Salience

Results from preliminary measurement analyses (not reported here) indicated that six of our outcome variables assessing marital salience loaded into two distinct constructs, with three observed variables in each construct. We labeled these two constructs *Marital Advantage* and *Marital Priority*, both of which fit conceptually under the Marital Salience component. This preliminary examination of measurement consisted of exploratory factor analyses in SPSS 20.0, with varimax rotation procedures. Specific factor loading and reliability outcomes are mentioned below.

Marital Advantage measured how advantageous an individual viewed marriage as being, relative to being single. We used the following three items which best approximated this construct: “I would rather hold on to my independence than get married,” “I think there are more advantages to being married than being single,” and “I think people are better off financially being single than married.” Participants were asked to indicate how well those statements described them, and response options ranged from 1 = Strongly Disagree to 5 = Strongly Agree. All items were coded in a way that higher values indicated higher levels of Marital Advantage. Our measurement model indicated that all items loaded well together (all standardized loadings were above 0.44, and there were no issues with cross-loading).

Marital Priority measured whether an individual considered marriage to be a high priority, or if enjoying singlehood was more important. We used the following three items which best approximated this construct: “It’s important to fully experience the single life before you marry and settle down,” “It’s important to me to fully enjoy the single life before I get married,” and “Right now, I’m just dating for fun.” Participants were asked to indicate how well those statements described them, and response options ranged from 1 = Strongly Disagree to 5 = Strongly Agree. All items were coded in a way that higher values indicated higher levels of Marital Priority. Our measurement model indicated that all items loaded well together (all standardized loadings were above 0.52, and there were no issues with cross-loading).

Family-of-Origin Quality

Family-of-origin quality assessed the overall quality of an individual’s family of origin. This measure was a composite scale which consisted of the following five subscales

(16 items total): Family Quality (four items; e.g., “We had a loving atmosphere in our family.”), Family Influence (three items; e.g., “There are matters from my family experience that I’m still having trouble dealing with or coming to terms with.”), Parent’s Marriage Quality (three items; e.g., “My mother/father was happy in her/his marriage.”), Father Parenting (three items; e.g., “My father participated in enjoyable activities with me.”), and Mother Parenting (three items; e.g., “My mother participated in enjoyable activities with me.”). Ultimately, these subscales captured how positive individuals perceived these particular aspects of their family of origin to be. The internal consistency reliability coefficient for the mentioned subscales combined was 0.81. Participants were asked to indicate how well the various items within each subscale described their past experiences, and response options ranged from 1 = Strongly Disagree to 5 = Strongly Agree. All items within this scale were coded in a way that higher values indicated higher levels of FQ. See Busby et al. (2001) to acquire greater discussion with respect to the psychometrics properties of these measures.

Past Relationship Influence

Past relationship influence assessed the impact that past romantic relationship experiences have had on the participants. This measure was a scale which consisted of the following items: “From what I have experienced in my romantic relationships, I think relationships are safe, secure, rewarding, worth being in, and a source of comfort,” “There are matters from my relationships that I am still having trouble dealing with or coming to terms with,” “From what I have experienced in my relationships, I think close relationships are confusing, unfair, anxiety-provoking, inconsistent, and unpredictable,” and “I feel at peace about anything negative that has happened to me in my romantic relationships.” Participants were asked to indicate how well those statements described them, and response options ranged from 1 = Strongly Disagree to 5 = Strongly Agree. All items were coded in a way that higher values indicated more positive and desirable PRI. The internal consistency reliability coefficient for this scale was 0.70.

Adult Attachment Orientation

We used the Adult Attachment Questionnaire (AAQ) to measure both *Attachment Anxiety* and *Attachment Avoidance* (Simpson et al. 1996). *Attachment Anxiety* consisted of nine items assessing how fearful participants were about relationships succeeding, how confident they were that their partners wouldn’t leave them, and whether or not they found themselves desiring to be closer to partners than their

partners wanted. Participants were asked to indicate how well the items described them, and response options ranged from 1 = Strongly Disagree to 7 = Strongly Agree. All items were coded in a way that higher values were indicative of higher levels of attachment anxiety. The internal consistency reliability coefficient for this scale was 0.83.

Attachment Avoidance consisted of eight items assessing how fearful participants were about commitment to a romantic relationship, how uncomfortable they were with partners getting too close, and whether or not it was easy for them to get close to their partners. Participants were asked to indicate how well the items described them, and response options ranged from 1 = Strongly Disagree to 7 = Strongly Agree. All items were coded in a way that higher values were indicative of higher levels of attachment avoidance. The internal consistency reliability coefficient for this scale was 0.84.

Control Variables

We controlled for a number of important covariates, such as the influence of age, income, educational attainment (that of the participant *and* his or her parents), gender, and race (Amato et al. 2007; Cherlin 2004; Risch et al. 2004; Willoughby 2010). Age was a continuous measure and required no coding modifications. Income was positively skewed, so we recoded it into two categories with a value of 0 being indicative of any income, and a value of 1 being indicative of no income (a predominate characteristic in our sample given that the majority were enrolled in college). Education was coded with the following response options: 1 = less than high school, 2 = high school equivalency (GED), 3 = high school diploma, 4 = some college, not currently enrolled, 5 = some college, currently enrolled, 6 = Associate's degree, 7 = Bachelor's degree, 8 = graduate or professional degree, not completed, and 9 = graduate or professional degree, completed. Parent's education followed the same coding scheme, and the response options regarding each relevant parent were added together. Gender was coded so that females were valued at 1 and males were valued at 0. Race was dichotomized so that all white participants were coded as 0 and all non-white participants were coded as 1.

Analysis Strategy

To test our hypotheses, we used structural equation modeling (SEM) procedures in Mplus 7.0 (Geiser 2013; Kline 2011) and employed maximum-likelihood estimation procedures to handle missing data (only about 3.9 % of the data were missing across all observed variables). This allowed us to estimate a main effects model, in which adult attachment was not included, and a mediation model, in

which adult attachment was included. We were then able to estimate both the direct and indirect effects associated with our exogenous, endogenous, and mediating variables/constructs. Refer to Fig. 1 for our hypothesized mediation SEM. In order to attain more accurate standard error estimates associated with indirect effects, we utilized bias-controlled bootstrapping methods with 1000 iterations (Geiser 2013). This methodological approach is particularly useful in mediation modeling, as indirect effects are the product of two or more regression coefficients which often results in a non-normal distribution of estimates (Geiser 2013). Bootstrapping utilizes asymmetric confidence intervals which serve as an appropriate methodological solution to this issue.

When utilizing SEM, it is also important to balance parameter estimation with sample size. An empirically established guideline, the so-called "*N:q* rule," suggests having at least 20 sample cases (*N*) per estimated parameter (*q*)—an *N:q* ratio of 20:1 (Jackson 2003; Kline 2011). If such a high ratio is unattainable, a ratio of 10:1 is reasonable, although less desirable (Kline 2011). When the ratio drops below this minimal threshold, parameter estimation is at risk of reduced accuracy (Jackson 2003). In the case of our analyses, the inclusion of all possible measurement model indicators would have led to the estimation of at least 197 parameters. Given that our sample size is 1,210, this would have been an *N:q* ratio of about 6:1—an unacceptable ratio. We decided to collapse our exogenous and mediating variables into composite observed variables, as these items demonstrated adequate construct validity and reliability. However, we retained the measurement models for two of our three endogenous variables (the third was already a single observed variable). Thus, our mediation SEM estimated 119 parameters, providing an *N:q* ratio of just over 10:1. All preliminary analyses were conducted in SPSS 20.0.

Results

Preliminary Analyses

Table 1 presents the correlations among all variables included in the study, and the means, standard deviations, and minimum and maximum values for all key exogenous and endogenous variables. Of note, results indicated significant negative correlations between attachment styles (anxious and avoidant) and both FQ and PRI. There was also a significant positive correlation between attachment anxiety and attachment avoidance. FQ was positively correlated with Marital Advantage and Marital Permanence, and PRI was positively correlated with Marital Advantage, Marital Permanence, and Marital Priority.

Table 1 Correlations for all study variables and descriptive statistics for exogenous, endogenous, and mediating variables ($N = 1,210$)

Variable	1	2	3	4	5	6	7	8	9	10	11	12
<i>Exogenous/mediating variables</i>												
1. Family-of-origin quality												
2. Past relationship influence	0.275**											
3. Attachment anxiety	-0.271**	-0.504**										
4. Attachment avoidance	-0.316**	-0.423**	0.326**									
<i>Endogenous variables</i>												
5. Marital Advantage	0.120**	0.230**	-0.063*	-0.284**								
6. Marital Permanence	0.152**	0.320**	-0.287**	-0.289**	0.173**							
7. Marital Priority	-0.034	0.098**	-0.049	-0.158**	0.331**	0.170**						
<i>Control variables</i>												
8. Age	-0.199**	-0.050	0.055	0.033	0.022	0.029	0.194**					
9. Gender (0 = male, 1 = female)	-0.016	-0.052	0.072*	0.088**	0.052	-0.152**	-0.046	-0.076**				
10. Education	-0.114**	-0.030	0.003	0.029	0.017	-0.005	0.082**	0.606**	0.035			
11. Income (0 = any income, 1 = no income)	0.072*	-0.023	0.018	0.016	-0.052	-0.008	-0.089**	-0.197**	0.005	-0.140**		
12. Parent's education	0.184**	0.062	-0.071	-0.082*	0.053	0.020	0.023	0.001	-0.117**	0.057	0.050	
13. Race (0 = white, 1 = non-white)	-0.192**	-0.029	0.005	0.166**	-0.138**	0.023	-0.076**	0.109**	-0.059*	0.067*	0.070*	-0.172**
<i>Descriptive statistics</i>												
<i>M</i>	3.76	3.29	3.70	3.44	3.62	3.01	2.71					
<i>SD</i>	0.86	0.82	1.04	1.06	0.67	1.30	0.88					
Minimum	1	1	1	1	1	1	1					
Maximum	5	5	7	7	5	5	5					

Marital Advantage and Marital Priority were compiled into composite scales for this analysis

* $p \leq .05$; ** $p \leq .01$

Attachment anxiety was negatively associated with Marital Advantage and Marital Permanence, and attachment avoidance was negatively associated with Marital Advantage, Marital Permanence, and Marital Priority. All control variables, except for parent's education, was significantly correlated with at least one of the marital paradigm variables. Refer to Table 1 for more details.

Main Effects SEM

In order to test our hypothesis regarding adult attachment as a mediator between FQ, PRI, and our three marital paradigm variables, we first analyzed a main effects model in which adult attachment was omitted. Table 2 displays the results for this model, including R-squared values, model fit indices, and standardized path coefficients. In terms of model fit, results indicated that the chi-squared value with 43 degrees of freedom was 175.32 and significant ($p < .001$), the TLI was 0.88, the CFI was 0.93, and the RMSEA was 0.05. These values, other than the TLI, are considered adequate (Arbuckle 2005; Byrne 2001). As for path coefficients, results indicated that a standard deviation increase in FQ was only associated with a slight increase in Marital Permanence ($\beta = 0.091, p < .01$) and that a standard deviation increase in PRI was associated with moderate increases in Marital Advantage, Marital Permanence, and Marital Priority ($\beta = 0.287, p < .001, \beta = 0.292, p < .001$, and $\beta = 0.167, p < .001$, respectively). Results from chi-square difference tests indicated that parameter estimates for PRI and FQ were significantly different at the $p < .001$ level ($\chi^2(3) = 38.61$). Taken together, these results suggest that PRI is more influential in marital paradigm formation relative to FQ, supporting our first hypothesis.

Results also indicated a number of significant associations between our control and endogenous variables. Specifically, we found that a standard deviation increase in age was associated with 0.126 ($p < .01$) and 0.331 ($p < .001$) standard deviation increases in Marital Advantage and Marital Priority, respectively. Also, being female was associated with a slight increase in Marital Advantage ($\beta = 0.085, p < .05$), but a slight decrease in Marital Permanence ($\beta = -0.129, p < .001$) relative to being male. Lastly, being non-white was associated with slight decreases in Marital Advantage and Marital Priority ($\beta = -0.157, p < .001$ and $\beta = -0.103, p < .05$ respectively) relative to being white.

Hypothesized Mediation SEM

Table 2 also displays the results for our hypothesized mediation model in which adult attachment was included. For this model, the chi-squared with 51 degrees of freedom was 185.61 and was significant ($p \leq .001$), the TLI was

0.90, the CFI was 0.95, and the RMSEA was 0.047. These values indicated adequate fit (Arbuckle 2005; Byrne 2001) and offered a significant improvement to the main effects model ($\chi^2(8) = 10.29$). The results of this model indicated the partial mediation of FQ and PRI on marital paradigms through adult attachment. More specifically, when attachment anxiety and attachment avoidance were included in the model, the association between FQ and Marital Permanence diminished and became non-significant ($\beta = 0.037, p > .05$). The associations between PRI and Marital Advantage, Marital Permanence, and Marital Priority also diminished yet retained significance ($\beta = 0.242, p < .001, \beta = 0.173, p < .001$, and $\beta = 0.103, p < .05$ respectively), and continued to be significantly different from the FQ parameters ($\chi^2(3) = 27.72$). Interestingly, when attachment anxiety and attachment avoidance were included in the model, the association between FQ and Marital Priority became significant ($\beta = -0.098, p < .05$).

In terms of direct associations between adult attachment and marital paradigms, results indicated that a standard deviation increase in attachment anxiety was associated with a 0.146 ($p < .001$) standard deviation increase in Marital Advantage, and a 0.133 ($p < .001$) standard deviation decrease in Marital Permanence. Furthermore, a standard deviation increase in attachment avoidance was associated with 0.301 ($p < .001$), 0.161 ($p < .001$), and 0.196 ($p < .001$) standard deviation decreases in Marital Advantage, Marital Permanence, and Marital Priority, respectively. Both attachment anxiety and attachment avoidance parameters were significantly different than FQ parameters ($\chi^2(3) = 27.56$ and $\chi^2(3) = 50.69$, respectively). These findings further support our first hypothesis—that proximal factors are more influential in marital paradigm formation than distal factors.

Associations between control and endogenous variables remained fairly similar to the estimates in the main effects model, with some slight differences. Age was still positively associated with Marital Advantage ($\beta = 0.110, p < .05$) and Marital Priority ($\beta = 0.325, p < .001$), although the magnitudes of these associations were slightly diminished. Being female became more strongly associated with Marital Advantage ($\beta = 0.100, p < .01$), but less strongly associated with Marital Permanence ($\beta = -0.111, p < .001$). Lastly, being non-white retained a significant negative association with Marital Advantage ($\beta = -0.111, p < .01$), yet its magnitude was slightly diminished.

Table 3 more thoroughly highlights the direct, and total indirect standardized associations between exogenous, endogenous, and mediating variables. In terms of *total indirect* associations via adult attachment, FQ yielded significant results for Marital Advantage, Marital Permanence, and Marital Priority ($\beta = 0.044, p < .001, \beta = 0.054, p < .001$, and $\beta = 0.041, p < .001$ respectively). Also,

Table 2 Standardized path coefficients for main effects and mediating models ($N = 1,210$)

Variable	Main effects SEM			Mediation SEM ^a				
	Marital Advantage β	Marital Permanence β	Marital Priority β	Marital Advantage β	Marital Permanence β	Marital Priority β	Attachment anxiety β	Attachment avoidance β
<i>Exogenous variables</i>								
Family-of-origin quality	0.043	0.091**	-0.060	0.004	0.037	-0.098*	-0.145***	-0.216***
Past relationship influence	0.287***	0.292***	0.167***	0.242***	0.173***	0.103*	-0.465***	-0.365***
<i>Mediating variables</i>								
Attachment anxiety	-	-	-	0.146***	-0.133***	0.012	-	-
Attachment avoidance	-	-	-	-0.301***	-0.161***	-0.196***	-	-
<i>Control variables</i>								
Age	0.126**	0.062	0.331***	0.110*	0.060	0.325***	-	-
No income	-0.024	0.001	-0.032	-0.024	0.005	-0.030	-	-
Any income	(ref.)			(ref.)				
Education	-0.034	-0.021	-0.055	-0.027	-0.026	-0.052	-	-
Parents' education	0.007	-0.022	0.002	0.011	-0.019	0.004	-	-
Female	0.085*	-0.129***	-0.007	0.100**	-0.111***	0.009	-	-
Male	(ref.)			(ref.)				
Non-white	-0.157***	0.030	-0.103*	-0.111**	0.046	-0.076	-	-
White	(ref.)			(ref.)				
R^2	0.132	0.129	0.128	0.206	0.164	0.158	0.273	0.223
<i>Model fit indices</i>								
Chi squared (df)	175.32 (43)***			185.61 (51)***				
TLI	0.88			0.90				
CFI	0.93			0.95				
RMSEA	0.05			0.04				
Model parameters	92			119				

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$ ^a Bias-corrected bootstrapping methods were employed with 1,000 iterations in order to generate more accurate standard error estimates for indirect effects. (ref.) indicates reference group for dichotomized variables. All control variables were correlated with key exogenous variables, and both exogenous variables were correlated with each other in both models

Table 3 Decomposition table of standardized direct and total indirect effects of variables in mediation SEM ($N = 1,210$)

Exogenous variables	Marital Advantage		Marital Permanence		Marital Priority		Attachment anxiety		Attachment avoidance	
	Total direct	Total indirect	Total direct	Total indirect	Total direct	Total indirect	Total direct	Total indirect	Total direct	Total indirect
Family-of-origin quality	0.004	0.044***	0.037	0.054***	-0.098*	0.041***	-0.145***	—	-0.216***	—
Past relationship influence	0.242***	0.042	0.173***	0.121***	0.103*	0.066**	-0.464***	—	-0.365***	—
Attachment anxiety	0.146***	—	-0.133***	—	0.012	—	—	—	—	—
Attachment avoidance	0.301***	—	-0.161***	—	-0.196***	—	—	—	—	—

Bias-corrected bootstrapping methods were used to estimate more accurate indirect effect standard errors. Total indirect effects indicate the standard deviation changes in the outcome resulting from both attachment anxiety and attachment avoidance as mediators. Refer to Fig. 1 for a visual representation of our mediation SEM

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

while PRI retained significance with all three of its direct associations with the marital paradigms when adult attachment was included in the model, there were significant total indirect associations between PRI and Marital Permanence and Marital Priority ($\beta = 0.121$, $p < .001$ and $\beta = 0.066$, $p < .01$, respectively). Comparatively, four out of the six direct associations between FQ, PRI, and the marital paradigms were significant while *five* out of the six total indirect associations were significant in the mediation SEM. Between the data displayed in both Tables 2 and 3, the significant partial mediation of adult attachment can be observed. These findings support our second hypothesis.

Discussion

The purpose of this study was to provide greater clarity and simplification regarding the marital paradigm formation process among emerging adults as it relates to family and interpersonal factors. To do so, we included adult attachment as an underlying mediator to illuminate a sound path through which past family and interpersonal processes potentially influence marital paradigm formation. Our two hypotheses were (1) that proximal factors, such as PRI and adult attachment, are more influential than distal factors, such as FQ, in terms of marital paradigm formation, and (2) that adult attachment serves as a meaningful mediating mechanism through which both FQ and PRI influence marital paradigm formation. Our results provided adequate support for both hypotheses.

In relation to our first hypothesis, we found that higher levels of FQ are related to lower levels of Marital Priority, but not significantly related to Marital Advantage or Marital Permanence. While this one negative association is somewhat surprising, the research conducted by

Willoughby et al. (2012) highlighted that some parents often encourage their emerging adult children to delay marriage as they pursue higher education. Given that about 69 % of our sample was enrolled in college during the time they took the assessment, this finding could very well apply. Also, it is likely that when an emerging adult reports high levels of FQ, the counsel offered them by their parents will hold more weight in their decision making. What is less surprising is that FQ was not significantly associated with Marital Advantage or Marital Permanence, meaning that distal family-of-origin factors were less influential.

As for interpersonal processes, the direct associations between PRI and marital paradigms are stronger and significant. We found that higher levels of PRI are significantly related to higher levels of Marital Advantage, Marital Permanence, and Marital Priority. So, the way in which emerging adults experience their romantic relationships, and the impact those experiences have on them, can influence the way they come to perceive the advantages and permanence of marriage, as well as the priority they place on marriage. These outcomes expand the work done by Carnelley and Janoff-Bulman (1992), as we found that past romantic relationship experiences are influential in the formation of marital paradigms, and not solely general relationship optimism. With respect to gender differences, just as scholars have noted the phenomena of “his and her” marriage (Fowers 1991) and “his and her” divorce (Hetherington and Kelly 2002), our findings provides some evidence for “his and her” marital attitudes. Also, our finding that white participants reported marriage as more advantageous than non-white participants is congruent with past research (Trent and South 1992) and reflects the cultural nuances of relationship attitudes often associated with race.

The relationship between adult attachment and marital paradigms further reflects the relative importance of

proximal factors in marital paradigm formation. We specifically found that an increase in attachment anxiety is related to higher levels of Marital Advantage, but lower levels of Marital Permanence. This is consistent with previous research conducted by attachment scholars who found that anxiously attached individuals are more likely to see relationships as a vehicle for increasing their felt security (Hazan and Shaver 1987). In this way, anxiously attached individuals might see marriage as a way to be emotionally rescued from their insecurity, thus seeing marriage as advantageous. However, while anxiously attached individuals often view intimate relationships as beneficial, they still remain fearful that their relationships will not be successful or enduring (Carnelley and Janoff-Bulman 1992; Whitaker et al. 1999). From our findings, we see that this same fear, or lack of confidence, is manifested in the marital paradigm context.

In terms of attachment avoidance, we found that an increase in attachment avoidance is associated with lower levels of Marital Advantage, Marital Permanence, and Marital Priority. These findings also fit in well with the existing attachment literature. Past studies have shown that individuals with higher levels of attachment avoidance are more likely to believe that true love does not exist, or that it will diminish quickly after a committed relationship is formed (Hazan and Shaver 1987). Researchers have also found that individuals with higher levels of attachment avoidance tend to prefer emotional distance rather than emotional dependence on others (McCrae and Costa 1989). We suggest that these same relational beliefs manifest themselves in the marital paradigms formed by individuals with an avoidant orientation. Given that the fear and evasion of relationship commitment, along with a desire to be self-sufficient, is indicative of an avoidant orientation, we can see from our results that attachment avoidance can shape marital paradigms in a way that marriage is likely to be undervalued and/or viewed pessimistically. Indeed, attachment avoidance yielded the strongest overall relationship with the marital paradigm outcomes.

Our second hypothesis deals with adult attachment as a mediator between family/interpersonal processes and the marital paradigm variables. Our findings suggest that FQ contributes more to one's adult attachment orientation than to one's marital paradigms directly, suggesting a stronger *indirect* association via adult attachment. This appears to be congruent with previous research which has shown that family-of-origin characteristics have limited influence on marital paradigm formation once an individual reaches the age of 18 (Cunningham and Thornton 2006; Willoughby et al. 2012). So, once individuals reach young adulthood their marital paradigms seem to be influenced more by their internal working model, or attachment orientation, and less by the more distal variables from their family of origin.

Results indicated that higher levels of PRI are also indirectly associated with marital paradigms via adult attachment. These indirect associations illustrate the assertion Bowlby (1969/1982) made that attachment styles are subject to alteration or adaptation based upon new social interactions. Individuals who are able to come to terms with negative past relationship experiences, or who would evaluate their past relationships as being pleasant and beneficial, are more likely to have attachment insecurities buffered, and thus more likely to form more positive marital paradigms. While past PRI maintains reasonable amounts of direct influence on marital paradigm formation in our mediation model, these paths are partially mediated by adult attachment.

Implications, Limitations, and Future Research

One of the overarching implications of this study is that marital paradigm formation is rather complex. It is a process that is influenced somewhat by distal family-of-origin characteristics and perhaps more strongly by proximal romantic relationship experiences and adult attachment. Furthermore, our study highlights the mediating influence that adult attachment has between family and interpersonal processes and marital paradigm formation. As a result, our findings offer one way to conceptually simplify these associations and thereby contribute to the existing knowledge base. In other words, our findings indicate that the influences of FQ and PRI, but especially FQ, on marital paradigms are partially carried through one's adult attachment style.

There are also a number of clinical implications related to our findings. First, clinicians who are working with individuals struggling in their pursuit of marriage might consider examining how the client's past relationships are influencing their marital attitudes and help them come to terms with any hardships (rejection, breakups, etc.) experienced. Furthermore, this clinical exploration could also expand into the client's attachment orientation, and the clinician could help the client work through any existing attachment issues, particularly dealing with avoidance. Second, clinicians might work with clients who seem to rush into committed relationships, resulting in negative relational outcomes. This might be due to clients' having higher levels of attachment anxiety, who rush to find a marital partner who will bring them the advantages of marriage they hope for. This type of behavior might lead to more challenging relationships for anxious clients and could be a focal point for clinicians. Third, not viewing committed relationships, such as marriage, to be a high priority is not necessarily a negative thing. Some individuals might have close family-of-origin ties and not see marriage with a firm sense of urgency. Clinicians should be

conscientious of clients' family backgrounds, and how it can influence their attitudes about marriage.

Along with implications, there are a number of limitations associated with this study. First, our models yielded moderate-to-weak standardized coefficients and R-squared values, suggesting that most of our exogenous variables were only mildly influential. Second, our sample was not collected by use of random national sampling. Thus, our results might not be fully generalizable to the nation at large. Because the dynamics associated with gender, race, and religious affiliation have been linked to role preferences, attitudes, and outcomes in the context of American family life (Amato et al. 2007; Crissey 2005; Lehrer 2004), overrepresentation of one or more of these groups could bias our results. We do, however, control for these variables in our analyses. Future research ought to incorporate more representative data to bolster external validity. Third, because our data were cross sectional, conclusions about the appropriate direction of associations could not be definitively confirmed. Indeed, it is reasonable to suspect that one's adult attachment orientation could influence how he or she represents past family-of-origin or adult romantic experiences (i.e., specifying adult attachment as a predictor of FQ and PRI). However, using retrospective reports of family-of-origin experiences to predict adult attachment is not without precedent (e.g., Dalton et al. 2006; Kelley et al. 2005), and the collection of observational data over time could prove useful in future attempts to examine the association between family and adult romantic experiences, adult attachment, and marital attitudes (e.g., Dinero et al. 2011).

Despite its limitations, the present study makes a number of significant contributions. First, our findings extend the influence of adult attachment on relationship attitudes by connecting it to specific marital paradigms. Second, our findings reveal that proximal interpersonal and attachment-oriented factors more strongly influence marital paradigm formation when compared to distal factors. Third, our study adds clarity to the relationship between family/interpersonal processes and marital paradigms by highlighting adult attachment as one salient mediating avenue for these associations. Because marital paradigms can influence a number of emerging adult lifestyle choices, these stand as meaningful contributions.

References

- Ainsworth, M., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Lawrence Erlbaum.
- Amato, P., Booth, A., Johnson, D., & Rogers, S. (2007). *Alone together: How marriage in America is changing*. Cambridge, MA: Harvard University Press.
- Arbuckle, J. L. (2005). *Amos 6.0 user's guide*. Chicago, IL: SPSS.
- Arnett, J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55, 469–480.
- Bogle, R., & Wu, H. (2010). Thirty years of change in marriage and union formation attitudes, 1976–2008 (FP-10-03). *National Center for Family and marriage Research*. http://ncfmr.bgsu.edu/pdf/family_profiles/file83691.pdf
- Bowlby, J. (1969/1982). *Attachment and loss: Vol. 1 attachment* (2nd ed.). New York: Basic. (Original work published 1969).
- Bowlby, J. (1988). *A secure base: Clinical applications of attachment theory*. London: Routledge.
- Busby, D. M., Holman, T. B., & Taniguchi, N. (2001). RELATE: Relationships evaluation of the individual, family, cultural, and couple contexts. *Family Relations*, 50, 308–316.
- Byrne, B. (2001). *Structural equation modeling with AMOS*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Carnelley, K., & Janoff-Bulman, R. (1992). Optimism about love relationships: General vs. specific lessons from one's personal experiences. *Journal of Social and Personal Relationships*, 9, 5–20.
- Carroll, J. S., Willoughby, B. J., Nelson, L. J., Barry, C. M., & Madsen, S. (2007). So close, yet so far away: The impact of varying marital horizons on emerging adulthood. *Journal of Adolescence Research*, 22, 219–247.
- Cherlin, A. (2004). The deinstitutionalization of American marriage. *Journal of Marriage and Family*, 66(4), 848–861.
- Clarkberg, M., Stolzenberg, R. M., & Waite, L. J. (1995). Attitudes, values and entrance into cohabitation versus marital unions. *Social Forces*, 74, 609–634.
- Crissey, S. R. (2005). Race/ethnic differences in the marital expectations of adolescents: The role of romantic relationships. *Journal of Marriage and Family*, 67(3), 697–709.
- Cunningham, M., & Thornton, A. (2006). The influence of parents' marital quality on adult children's attitudes toward marriage and its alternatives: Main and moderating effects. *Demography*, 43, 659–672.
- Dalton, W. T., Frick-Horbury, D., & Kitzmann, K. M. (2006). Young adults' retrospective reports of parenting by mothers and fathers: Associations with current relationship quality. *The Journal of General Psychology*, 133(1), 5–18.
- Dinero, R. E., Conger, R. D., Shaver, P. R., Widaman, K. F., & Larsen-Rife, D. (2011). Influence of family of origin and adult romantic partners on romantic attachment security. *Couple and Family Psychology: Research and Practice*, 1, 16–30.
- Fowers, B. J. (1991). His and her marriage: A multivariate study of gender and marital satisfaction. *Sex Roles*, 24(3–4), 209–221.
- Fraley, R. C., & Spieker, S. J. (2003). Are infant attachment patterns continuously or categorically distributed? A taxometric analysis of strange situation behavior. *Developmental Psychology*, 39, 387–404.
- Geiser, C. (2013). *Data analysis with Mplus*. New York: The Guilford Press.
- Hall, S. S. (2006). Marital meaning: Exploring young adults' belief systems about marriage. *Journal of Family Issues*, 27, 1437–1458.
- Hall, S. S. (2012). Implicit theories of the marital institution. *Marriage and Family Review*, 48, 1–19.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511–524.
- Hetherington, E. M., & Kelly, J. (2002). *For better or worse: Divorce reconsidered*. New York: Norton.
- Jackson, D. (2003). Revisiting sample size and number of parameter estimates: Some support for the $N:q$ hypothesis. *Structural Equation Modeling*, 10, 128–141.

- Kelley, M. L., Nair, V., Rawlings, T., Cash, T. F., Steer, K., & Fals-Stewart, W. (2005). Retrospective reports of parenting received in their families of origin: Relationships to adult attachment in adult children of alcoholics. *Addictive Behaviors*, 30(8), 1479–1495.
- Kline, R. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York: Guilford Press.
- Lefever, S., Dal, M., & Matthiasdottir, A. (2007). Online data collection in academic research: Advantages and limitations. *British Journal of Educational Technology*, 38(4), 574–582.
- Lehrer, E. L. (2004). Religion as a determinant of economic and demographic behavior in the United States. *Population and Development Review*, 30(4), 707–726.
- McCrae, R., & Costa, P. (1989). The structure of interpersonal traits: Wiggin's circumplex and the five-factor model. *Journal of Personality and Social Psychology*, 56, 586–595.
- Mikulincer, M., & Shaver, P. (2007). *Attachment in adulthood. Structure, dynamics, and change*. New York: The Guilford Press.
- Risch, S. C., Jodl, K. M., & Eccles, J. S. (2004). Role of the father-adolescent relationship in shaping adolescents' attitudes toward divorce. *Journal of Marriage and Family*, 66, 46–58.
- Simpson, J. A., Rholes, S. W., & Phillips, D. (1996). Conflict in close relationships: An attachment perspective. *Journal of Personality and Social Psychology*, 71, 899–914.
- Thornton, A., & Young-DeMarco, L. (2001). Four decades of trends in attitudes toward family issues in the United States: The 1960s through the 1990s. *Journal of Marriage and Family*, 63, 1009–1037.
- Trent, K., & South, S. (1992). Sociodemographic status, parental background, childhood family structure, and attitudes toward family formation. *Journal of Marriage and the Family*, 54(2), 427–439.
- Whitaker, D., Beach, S., Etherton, J., Wakefield, R., & Anderson, P. (1999). Attachment and expectations about future relationships: Moderation by accessibility. *Personal Relationships*, 6, 41–56.
- Willoughby, B. J. (2010). Trajectories of marital attitudes across adolescence. *Journal of Youth and Adolescence*, 39, 1305–1317.
- Willoughby, B. J., & Carroll, J. S. (2010). Sexual experience and couple formation attitudes among emerging adults. *Journal of Adult Development*, 17, 1–11.
- Willoughby, B., Carroll, J., Vitas, J., & Hill, L. (2011). “When are you getting married?”: The intergenerational transmission of attitudes regarding marital timing and marital importance. *Journal of Family Issues*, 32, 1–23.
- Willoughby, B. J., & Dworkin, J. D. (2009). The relationships between emerging adults' expressed desire to marry and frequency of participation in risk behaviors. *Youth and Society*, 40, 426–450.
- Willoughby, B., Hall, S., & Luczak, H. (2013). Marital paradigms: A conceptual framework for marital attitudes, values and beliefs. *Journal of Family Issues*. doi:[10.1177/0192513X13487677](https://doi.org/10.1177/0192513X13487677).
- Willoughby, B., Olson, C., Carroll, J., Nelson, L., & Miller, R. (2012). Sooner or later? The marital horizons of parents and their emerging adult children. *Journal of Social and Personal Relationships*, 29(7), 967–981.