Hooking Up, Sexual Attitudes, and Parental Repartnering Choices: Variations at the Intersection of Race and Gender

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Hooking Up, Sexual Attitudes, and Parental Repartnering Choices:
Variations at the Intersection of Race and Gender

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A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Science

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ABSTRACT

Hooking Up, Sexual Attitudes, and Parental Repartnering Choices: Variations at the Intersection of Race and Gender

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Using a subsample of emerging adults from the Stepfamily Experiences Project (n = 989), we examine how parents’ repartnering choices (nonmarital and premarital cohabitation) influence their emerging adult children’s commitment-related relationship attitudes (attitudes about sex in committed relationships) and behaviors (hooking up). We further examine these processes at the intersection of race and gender. In this way, we expand the current emerging adult literature by exploring two understudied populations: emerging adults who grew up in stepfamilies, and emerging adults from diverse racial backgrounds. We divided our sample by race (black, Latino, American Indian, white, and multiracial) and gender, resulting in 10 groups. We compared those 10 groups using structural equation modeling within the Bayesian framework. We found a strong association for all groups between attitudes about sex in committed relationships and hooking up and a connection between parental cohabitation and hooking up, which connection was only explained by attitudes for white men. We also found significant variation at the intersection of race and gender for all but one of our hypothesized associations. These results highlight the importance of examining variation at the intersection of race and gender and also suggest that family of origin factors, such as parental cohabitation, may impact hooking up among emerging adults raised in stepfamilies.

Keywords: race, gender, intersection, emerging adulthood, stepfamily, hooking up, parental cohabitation, sexual attitudes, commitment, Bayesian
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Introduction

The racial and ethnic composition of emerging adults in the United States is changing. In 2013, the U.S. census estimated that 14% of 18-30 years old were African American, 18% were Hispanic, .8% were American Indian, and 56% were white, non-Hispanic (U.S. Census Bureau, 2014). Projections made by the US Census Bureau suggest that by 2042 non-Hispanic whites will no longer be the majority in the general population of the United States (Perez & Hirschman, 2009). However, as pointed out by Syed and Mitchell (2013), relatively little research explored the experiences of racial minority emerging adults. The proportion of racial minority emerging adults and the lack of research on their experiences emphasizes the need for more culturally sensitive research.

Furthermore, current theorizing about race argues that race and gender mutually reinforce each other, emphasizing the importance of examining processes at the intersection of race and gender (Collins, 1998a; Crenshaw, 1991). While emerging adulthood researchers have examined differences between genders, very few examine race and gender together (e.g. Upchurch, Levy-Storms, Sucoff, & Aneshensel, 1998). Though it is likely that limitations in samples prevent this more nuanced approach, lumping individuals of different races and genders together prevents the field from achieving a more accurate understanding of emerging adults’ unique experiences within and across groups.

Finally, cultural sensitivity is not the only feature of emerging adulthood demanding attention. More and more emerging adults have experienced divorce and remarriage in their families of origin (Copen, Daniels, Vespa, & Mosher, 2012). Yet, the majority of the emerging adulthood literature ignores these trends. Here we aim to remedy this gap by focusing
exclusively on a national sample of emerging adults who grew up in stepfamilies due to parental divorce.

Changes to the contemporary landscape of the American family require scholarly attention because parents’ repartnering behaviors following divorce may influence emerging adults’ attitudes and behaviors regarding their own partnership formation, particularly as these attitudes and behaviors relate to commitment and to sexuality (established by many scholars as key features of healthy family formation; see Halpern & Kaestle, 2014; Stanley, Rhoades, & Whitton, 2010).

Thus, in this paper we combine a culturally sensitive approach to the intersections of race and gender among individuals who grew up in stepfamilies, with an exploration of parental repartnering as contexts for emerging adults’ own attitudes and behaviors about commitment and sexuality. More specifically, we examine if parents’ commitment-related relationship behaviors, such as premarital or nonmarital cohabitation, influence their children’s commitment-related relationship attitudes and behaviors (e.g. do they think commitment is important for having sex, do they have sex in uncommitted relationships?).

This paper contributes to the literature not only by examining how family of origin can influence commitment-related sexual attitudes and behaviors, but also by providing a more nuanced understanding of variation in these processes at the intersection of race and gender. This paper further contributes to the literature by examining an understudied but growing group of emerging adults who grew up in stepfamilies.
Background

The Intersection of Race and Gender

Socio-historical prejudice (e.g. discrimination and privileging based on race and/or gender) and other socio-cultural factors provide the backdrop for many current attitudes and behaviors, yet theorizing about emerging adulthood has largely ignored the fact that emerging adults live within the context of race and gender. When our theorizing ignores these features of every-day life, we do not correctly capture the truth about who emerging adults are and why they behave the way they behave. We suggest that extending the theorizing surrounding intersectionality to emerging adulthood will help to provide a fuller picture of emerging adults.

We first explore what intersectionality is, and we follow by providing an example of how it might possibly complement current family science theorizing by combining intersectionality with contemporary theorizing surrounding attitudes and behaviors in emerging adulthood.

Intersectionality refers to the way that various social phenomena, such as race and gender, mutually reinforce each other (Collins, 1998a; Crenshaw, 1991). In other words, the experiences and characteristics associated with a given race and gender come together to create a unique context for attitudes and behaviors to develop and play out. For example, an individual of American Indian heritage will experience family life differently than an individual of Latino heritage. Some of these differences may emerge because of socio-cultural differences. While Latinos have a background of immigration and acculturation influencing their family life (Sabogal, Marín, Otero-Sabogal, Marín, & Perez-Stable, 1987; Smokowski, Rose, & Bacallao, 2008; Suárez-Orozco & Suárez-Orozco, 1995), American Indians have a history of structural disadvantage (Huyser, Sakamoto, & Takei, 2010). Yet in addition to factors unique to one’s race, the gender of that individual will also likely change the way that their heritage impacts their
attitudes and behaviors in family life. Examples of this include behaviors of Latino men being influenced by immigration differently than behaviors of Latina women (Weiss & Tillman, 2009), and behaviors of American Indian men being influenced differently by structural disadvantages than behaviors of American Indian women (Huyser et al., 2010; Painter-Davis, 2012).

Substantial theoretical and empirical work exists surrounding intersectionality as it applies to black women (Nash, 2008). That work provides a good model of how intersectionality might apply to other racial and gender groups. It illustrates how individuals' experiences may be shaped by both race and gender, which demonstrates the importance of conducting culturally sensitive research that accounts for variation due to both race and gender. Additionally, it suggests that individuals’ lived experiences cannot be fully captured when research fails to weave the phenomena together (De Reus, Few, & Blume, 2005).

Beal's (2008) writings about discrimination against black women provide an example of how race and gender can mutually reinforce each other. Specifically, her concept of double jeopardy provides an ideal demonstration. As she explored the economic challenges that are experienced exclusively by black women, she pointed out that being a woman has often resulted in economic exploitation for many, as has being black. Therefore, the combination of being a woman and black doubles down on the economic exploitation and presents a unique situation to black women. Black women and white women have similar experiences due to their gender (e.g. discrimination in the workplace; Browne & Misra, 2003), just as black women and black men also have similar experiences (e.g. racial stereotyping about criminal behavior; Hurwitz & Peffley, 1997). These gender and racial similarities highlight the value of researching the uniqueness that occurs at the place where race and gender intersect.
We suggest that this uniqueness occurs for all gender and racial groups, yet our understanding of intersectionality among other racial groups, such as American Indian, Latino, or multiracial, is limited. Especially due to research’s reliance on black women as the basis for intersectionality’s tenets, further empirical investigation is necessary to determine if other groups are also intersectional (Nash, 2008).

In line with Collins’ (1998b) suggestion for family science, we extend intersectionality to examine how race and gender collectively shape constructs that often receive “a more narrow treatment within the confines of traditional family studies” (p. 33). Thus, we theorize that the intersection of race and gender subsequently informs attitudes and behaviors. We posit that the socio-cultural influences present in emerging adults’ lives can influence what they think and do. Because there are unique socio-cultural influences associated with each gender and racial group, these socio-cultural influences can potentially explain differences in emerging adults’ attitudes and behaviors. For example, a Latina woman and a Latino man may both have their beliefs influenced by cultural norms discouraging extramarital sex. However, a Latina woman may be even further influenced away from extramarital sexual behavior by Latino cultural norms that apply only women, such as Marianismo, which encourages the virginity and fidelity of women (Gilliam, Warden, & Tapia, 2004; Sterling & Sadler, 2009). Cultural phenomena such as these can lead to variation at the intersection of race and gender due to the unique effects they have on each racial and gender group. For these reasons, we theorize that the intersection of race and gender moderates the relationship between sexual attitudes and behaviors for emerging adults (see Figure 1).

Despite possible variation at the intersection of race and gender, limitations in previously studied samples have restricted our understanding in a way that we often know more about the
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unique experiences of the majority. However, because we use a national sample that includes sufficient numbers of blacks, Latinos, American Indians, whites, and multiracial individuals, we are able to study the variation where race and gender intersect. We recognize that many more contexts, such as class, sexual orientation, and religion, also intersect with and mutually reinforce race and gender (Nash, 2008). While practical limitations allow us only to examine two contextual factors in this paper, we still view this as a step in the right direction. Our goal is to provide an example of how the intersection of race and gender can be taken into account in theoretical and empirical work by examining variation at the intersection race and gender in how parents’ attitudes and behaviors influence their children’s attitudes and behaviors.

Culturally-Sensitive Adaptations of the Reasoned Action Approach and Social Learning Theory

In the current study, we suggest a culturally-sensitive approach to study the way that parents’ attitudes and behaviors impact their children. We combine this culturally sensitive approach with two key theories often used to understand associations between attitudes and behaviors: the Reasoned Action Approach (RAA; Fishbein & Ajzen, 2010) and Social Learning Theory (SLT; Bandura, 1977). Our theorizing emphasizes that reasoned action and social learning happen in the larger social context of race, gender, and family of origin experiences. In other words, we put the RAA and SLT in the context of race, gender, and growing up in a stepfamily because individuals of different races and genders may vary in their attitudes, behaviors, and the way they learn from others despite their shared experience of growing up in a stepfamily.

We draw on four pieces of the RAA, namely behavioral beliefs, attitude toward actually performing the behavior, behavioral intention, and the behavior. Behavioral beliefs are one's
expectations for positive or negative outcomes as a result of performing a behavior. Behavioral beliefs influence one's positive or negative evaluation of behaving in that given way, which the RAA refers to as that person's attitude toward actually performing the behavior. The person's attitude toward the behavior helps to form the behavioral intention, or one's readiness to behave in the given way. The stronger that behavioral intention, the more likely that person is to perform the behavior (Fishbein & Ajzen, 2010). In other words, attitudes predict behaviors.

Following the example discussed above regarding the intersection of race and gender for Latinos, the socio-cultural backgrounds of Latino men and Latina women are likely to influence their attitudes and behaviors. Therefore, differences in socio-cultural backgrounds of racial and gender groups may contribute to differences in emerging adults’ behaviors, such as hooking up. We make and test the assumption that similar differences exist among other racial and gender groups.

Social Learning Theory (SLT) posits that parents' attitudes and behaviors can be passed on to their children through modeling, observation, etc. (Bandura, 1977). Therefore, combining the RAA with SLT explains how parents’ attitudes and behaviors can influence their children’s attitudes and behaviors. Parents’ attitudes are made evident through the way they behave and can also be communicated through teaching. Children observe and learn from their parents’ behaviors and incorporate what they observe and learn into their behavioral beliefs, which subsequently influence their attitudes about the behavior, their behavioral intentions and their behaviors.

The way this all occurs may vary at the intersection of race and gender. Continuing with the Latino example, the combination of the intersection of race and gender, the RAA and SLT suggests that socio-cultural influences, such as discouraging extramarital sex and Marianismo
(Gilliam et al., 2004; Sterling & Sadler, 2009), played a role in determining Latino parents’ attitudes and behaviors. Latino emerging adults then model their parents’ attitudes and behaviors in the formation of their own attitudes and behaviors. Furthermore, while our specific examples are limited to certain groups, we make and test the assumption that these processes exist among all racial and gender groups. Learning more about these processes is important because they can help us understand variation around the intersection of race and gender.

The attitudes and behaviors we focus on in the current study are commitment-related relationship attitudes and behaviors, meaning attitudes and behaviors related to one’s commitment in relationships. We operationalize commitment-related relationship behaviors of parents by measuring their repartnering choices about cohabitation. We operationalize emerging adults’ attitudes about commitment in relationships through a measure of attitudes about sex in committed relationships. Emerging adults’ commitment-related relationship behaviors are operationalized using a measure of hooking up. While we do not have a measure representing parents' attitudes about commitment in relationships, we feel that our model still represents the theories well enough because, according to the RAA, parents' commitment-related relationship behaviors are strongly influenced by their attitudes about commitment in relationships. Therefore, parents’ commitment-related relationship behaviors are sufficient to serve as a proxy for their attitudes about commitment in relationships.

The unification of the RAA and SLT occurs as parents’ attitudes and behaviors about cohabitation are observed by their children. Because both premarital and nonmarital cohabiting relationships are sometimes associated with lower levels of interpersonal commitment than marriage relationships (Stanley, Whitton, & Markman, 2004), children who observe their parents cohabiting prior to or instead of marriage may assimilate similar attitudes into their behavioral
beliefs, attitudes about behaviors, and behavioral intentions. They would therefore be more likely to value commitment in relationships less than children who observe their parents who marry without cohabiting. Because the emerging adults’ behaviors would presumably be influenced by their attitudes, those who value commitment less would be more likely to engage in hooking up, which is by definition an uncommitted sexual relationship. Thus, it is possible that parents’ commitment-related attitudes and behaviors may influence their children’s commitment-related attitudes and behaviors, and the way that influence occurs is likely to differ across the intersection of race and gender.

**Emerging Adults and Hooking Up**

In order to test our theoretical assumptions we examine how parents’ commitment-related relationship behaviors (nonmarital and premarital cohabitation) influence their emerging adult children’s commitment-related relationship attitudes (attitudes about sex in committed relationships) and behaviors (hooking up). Societal changes in age at sexual initiation, number of sexual partners, and age at entry into marriage and childbearing have impacted the life course of emerging adults. These changes have contributed to the stage of “emerging adulthood,” a period of life in which 18 to 29 year old youth in Western societies are no longer adolescents, yet are not independent adults either. This time is often characterized by exploration of sexuality and relationships (Arnett, 2000). For many of these emerging adults, a part of their exploration includes hooking up. Evidence of this has been provided in the National Longitudinal Study of Adolescent Health (Add Health) sample, in which 71% of 24 to 32 year olds both with and without college experience had hooked up at least once (Goldberg, Hussey, & Halpern, 2012). Among college students, it is estimated that somewhere between 60% to 80% have had some sort of hooking up experience (Garcia, Reiber, Massey, & Merriwether, 2012).
The term “hooking up” has varied meanings among emerging adults, (Lewis, Atkins, Blayney, Dent, & Kaysen, 2013), with definitions ranging from kissing to intercourse between two casual partners (Halpern & Kaestle, 2014; Paul & Hayes, 2002). The key distinction between hooking up and other types of sexual interaction is that hooking up usually lacks expectations for a committed relationship (Epstein, Calzo, Smiler, & Ward, 2009; Paul, McManus, & Hayes, 2000). Research has linked phenomena such as sexual scripts on college campuses (Berntson, Hoffman, & Luff, 2014), alcohol consumption (Grello, Welsh, & Harper, 2006; LaBrie, Hummer, Ghaidarov, Lac, & Kenney, 2014), and religiosity (Penhollow, Young, & Bailey, 2007) as potential predictors of hooking up. Hooking up has been associated with positive outcomes such as satisfaction, but also with negative outcomes such as guilt and remorse (Owen, Rhoades, Stanley, & Fincham, 2010), increased depressive symptoms, greater feelings of loneliness (Owen, Fincham, & Moore, 2011), having concurrent sexual partners (Paik, 2010), lower likelihood of condom use (Lewis, Granato, Blayney, Lostutter, & Kilmer, 2012), a greater chance of contracting a sexually transmitted infection (Heldman & Wade, 2010), and unwanted and nonconsensual sex (Peterson & Muehlenhard, 2007).

While less research has focused specifically on the effects of growing up in a stepfamily on hooking up, parental divorce has been connected to hooking up behaviors. Some research demonstrates that emerging adults whose parents divorced are more likely to adopt risky sex behaviors than those whose parents did not divorce (Kotchick, Shaffer, Miller, & Forehand, 2001). For example, Glenn and Marquardt (2001) found that college women from divorced families were more likely to have hooked up and to have done so more often compared to college women from intact families. Another study found an association between parental
divorce and higher likelihood of having sex with a non-romantic partner (Manning, Longmore, & Giordano, 2005).

Additionally, some research suggests that children whose parents divorced are more likely to have lower levels of commitment (Amato & DeBoer, 2001), and therefore may be drawn to the non-committal nature of hooking up (Owen et al., 2010). Thus, it seems that decisions parents make about their relationships may influence the way their children engage in romantic and/or sexual relationships. This research has not, however, explored the ways that parental repartnering decisions following divorce may continue to influence attitudes about commitment in sexual relationships; nor has such research explored parental repartnering decisions as correlates of hooking up.

While this literature might suggest that emerging adults of divorced parents are more likely to hook up, it is unlikely that all children of divorced parents will behave the same way (Amato, 2010), particularly when there is variability in parents’ repartnering decisions and behaviors, and variability in race and gendered experiences among these groups. Thus, it is important to increase our understanding of mechanisms contributing to hooking up that are specific to this population.

**Attitudes about Sex in Committed Relationships**

We include the emerging adults’ attitudes about sex in committed relationships to represent commitment-related relationship attitudes in our model. This allows us to test the hypothesized association between parental repartnering choices and hooking up. Research has found a connection between attitudes about sex in committed relationships and hooking up (Owen et al., 2010), an association which we hope to replicate. For this reason, we hypothesize that these attitudes will directly influence hooking up frequency.
Also, some literature indicates attitudinal variation by gender. For example, in a sample of 1,003 emerging adults, men were more likely to think that sexual experiences prior to being in a committed relationship were appropriate (Taylor, Rappleyea, Fang, & Cannon, 2013). Others have also suggested that women tend to have a more relational orientation toward sexuality (Harper, Gannon, Watson, Catania, & Dolcini, 2004; Hill, 2002; McCabe, 2005). Additionally, two key meta-analyses synthesized years of research and found that men are more likely to have permissive attitudes toward hooking up (Oliver & Hyde, 1993; Petersen & Hyde, 2010). There also seems to be variation by race (Owen et al., 2010; Weinberg & Williams, 1988), but that variation is underexplored. Thus, we hypothesize that the association between attitudes about sex in committed relationships and the other variables will differ at the intersection of race and gender.

**Parental Repartnering Choices about Cohabitation**

Our theoretical model suggests that behaviors related to relationship commitment may be passed from one generation to the next. This transmission of attitudes has been captured in other research that found a link between parents’ marital attitudes and their children’s marital attitudes (Willoughby, Carroll, Vitas, & Hill, 2012), and we seek to extend that link between parents’ and children’s marital attitudes to parents’ and children’s commitment-related relationship attitudes and behaviors. Because both nonmarital and premarital cohabitation have been linked with lower levels of commitment, especially when cohabitation occurs without a specific commitment to marry (Stanley et al., 2004), emerging adults whose parents cohabited may have lower levels of commitment in their relationships in comparison to those whose parents remarried without cohabitation. This would be the case if attitudes and behaviors could indeed transmit from one generation to the next as theorized by SLT. Likewise, emerging adults whose parents cohabited
in second or higher order relationships without ever marrying may have lower levels of commitment compared to those whose parents married after cohabiting (Rhoades, Stanley, & Markman, 2006, 2009). Thus, we include parental cohabitation in our study to examine whether or not it is associated with attitudes about sex in committed relationships and hooking up due to attitudes and behaviors being transmitted from parents to children.

The Present Study

Based on our culturally sensitive approach to the way that parents’ attitudes and behaviors impact their children’s attitudes and behaviors, the present study examines how the relationships between hooking up, attitudes about sex in committed relationships, and parental cohabitation vary by race and gender. Our primary hypothesis is that variations in processes linking attitudes and behaviors among emerging adults will vary at the intersection of race and gender. The following represent our subsequent hypotheses:

1. Emerging adults who think committed relationships are important for sex will hook up less often.
2. Those whose parents cohabited without remarrying will be more likely to be more permissive in their attitudes about sex in committed relationships compared to those whose parents did not cohabit prior to remarriage.
3. Emerging adults whose parents cohabited prior to remarrying will be more likely to be more permissive in their attitudes about sex in committed relationships compared to those whose parents did not cohabit prior to remarriage.
4. Emerging adults whose parents cohabited without remarrying will be more likely to hook up compared to those whose parents did not cohabit prior to remarriage.
5. Emerging adults whose parents cohabited prior to remarrying will be more likely to hook up compared to those whose parents did not cohabit prior to remarriage.

6. Attitudes about sex in committed relationships will mediate the relationship between the parental cohabitation variables and hooking up.

While we do not have specific hypotheses about how each racial and gender group will vary on each of these six hypotheses due to a lack of research exploring these constructs in the context of the intersection of race and gender, our central research question is, “how do these six hypotheses vary by race and gender?”

Methods

Sample

The data come from the Stepfamily Experiences Project (STEP), a national sample of 1,593 emerging adults (18-30) who lived in a stepfamily between the ages of 8 and 18. The study was designed to match the demographics of the United States population. While stepfamilies are relatively common in the US, most representative samples in the US report between 10-25% of respondents having met the criteria for inclusion into our sample. This suggests that a random sample of 8,000-15,000 would be necessary to accrue the sample size produced by our sample. As a result, small samples and the inability to capture variability between stepfamilies are common problems in the literature (see King, Thorsen, & Amato, 2014 for a discussion of this issue). Our sampling technique allows us to capture variability missing in most samples of repartnered families. This sample also allows us to move beyond the typical study on casual sex that only looks at college students (Owen et al., 2010) to include other emerging adults who were not college students (Claxton & van Dulmen, 2013).
The classifications of Asian American (n = 33) and other (n = 12) are too small for our analyses and are therefore omitted. Because the research literature suggests a connection between parental divorce and hooking up (Glenn & Marquardt, 2001; Kotchick et al., 2001; Manning et al., 2005), we also drop respondents whose parents were separated due to reasons other than divorce (n = 133). Removing these individuals from our sample allows us to explore possible explanations for the association between parental divorce and adverse outcomes. Also, because married or remarried individuals who are hooking up are likely in different relationship situations that are outside of the scope of this study, we exclude those who are either married (n = 377) or remarried (n = 49). Of the remaining sample (n = 989), 539 (54.5%) are female, 450 (45.5%) are male, 610 (61.7%) are white, non-Hispanic, 183 (18.5%) are American Indian, 114 (11.5%) are black, 113 (11.4%) are Latino, and 82 (8.3%) are multiracial.

**Procedures**

Data collection was IRB approved by the co-investigators’ institution. Respondents gave written informed consent for their participation, in accordance with the approved IRB protocol. Qualtrics, an American research firm specializing in quantitative and qualitative data collection for universities, non-profits, and corporations, collected our sample. Individuals in the Qualtrics panel could respond to the online survey. Although online surveys may produce less representative samples of a population of interest than other survey methodologies, this concern is attenuated among emerging adult populations (Fink, 2003). Sociodemographics of the sample match census population estimates of racial/ethnic composition and educational attainment for American emerging adults (see Jensen, Shafer, and Holmes, in press for further details).

**Measures**
Hooking up frequency. This item comes from the Risk Behaviors Associated with Sex Scale used in RELATE (Busby, Holman, & Taniguchi, 2001) and assesses how often the emerging adults hook up. The question stem states: “Please indicate how often you have engaged in the following activities over the course of the last 12 months.” The item states: “Hook-up sexually with someone you just met?” and is measured on a likert scale ranging from 0 (never) to 5 (almost everyday), with higher scores indicating a higher amount of hooking up. Because of small cell sizes, we recoded the variable to be on a scale of 1 to 3 (0 = None, 1 = Once a month or less, 2 = More than once a month).

Attitudes about sex in committed relationships. We constructed a four-item latent variable using items adapted from the Risk Attitudes about Sex Scale used in RELATE (Busby et al., 2001). The items measure how important the emerging adults thought a committed relationship was to have sex. Examples of the items include: “Two people should only have sex after they have dated for a while” and “It is okay to hook-up sexually with someone just for fun and not expect anything more.” All items are measured on a likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating more importance placed on sex in committed relationships. The alpha reliability coefficient for the scale is $\alpha = .80$.

Parental cohabitation. Participants were also asked to indicate the length of time in years that their residential parents had cohabited prior to their repartnering. The item asked, “If a marriage took place, how many years did they live together before marrying?” Because the answers from survey respondents ranged from 0 to 30 years, we created dummy-coded variables to represent three categories: parental cohabitation prior to remarriage (premarital cohabitation), parental cohabitation without remarriage (nonmarital cohabitation), and parental remarriage without cohabitation (see Table 1 for descriptive statistics on each category).
Control variables. We also control for the following: 1) highest education level completed (1 = less than high school, 2 = high school equivalency, 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, 9 = graduate or professional degree, completed), 2) yearly gross income (1 = none, 2 = Under $20,000, 3 = $20,000-39,999, 4 = $40,000-59,999, 5 = $60,000-79,999, 6 = $80,000-99,999, 7 = $100,000-119,999, 8 = $120,000-139,999, 9 = $140,000-159,999, 10 = $160,000-199,999, 11 = $200,000-299,999, 12 = $300,000 and above), 3) age in years of the emerging adult, 4) age in years of the emerging adult at the time that their stepfamily formed, and 5) whether they were currently single or in a committed relationship (0 = single; 1 = committed relationship). Descriptive statistics for each variable are listed in Table 1.

Analysis Plan

To examine variations across race and gender, we used structural equation modeling to compare groups using Mplus version 7.3 (see Figure 1). We divided our sample by race (black, Latino, American Indian, white, and multiracial) and gender, resulting in a total of 10 groups (see Table 1 for the size of each group). Bayesian estimation was used to accommodate the small sample sizes of the sub-groups, because it allows for a sample size only two or three times the number of parameters (S. Y. Lee & Song, 2004). Because typical multigroup comparison methods cannot be used within a Bayesian framework, we compared groups using mixture modeling with known classes (L. K. Muthén & Muthén, 2012).

Because Bayesian estimation is not used as frequently in the social sciences, we include here a brief introduction to Bayesian statistics intended for an audience with an understanding of maximum likelihood estimation. (See van de Schoot et al., 2014 and van de Schoot & Depaoli,
2014 for an accessible and more extensive overview of Bayesian statistics.) There are three pieces of information that play a role in Bayesian estimation: knowledge that comes from prior research (priors), knowledge that comes from the observed data (likelihood function), and knowledge that comes from a compromise between the first two (posterior distribution).

The ability to incorporate prior knowledge into analyses is one of the strengths of Bayesian estimation. The previous information, referred to as a prior, is established for each parameter being estimated. That information often comes from other studies of similar constructs, from meta-analyses, or from systematic reviews. There are three principle types of priors (non-informative, weakly-informative, and informative) that capture varying levels of uncertainty and that have corresponding levels of influence on the final parameter estimate. Non-informative priors represent the greatest amount of uncertainty about the population parameter and therefore have the least amount of influence on the final parameters. Due to a lack of previous research conducted on the constructs we examined within the context of race and gender, we relied on maximum likelihood estimates as the non-informative priors for our study.

To better inform our readers about the use of priors in Bayesian estimation, we briefly describe the other two principle types of priors (i.e. weakly-informative and informative) here. Weakly-informative priors represent somewhat more certainty about the population parameters and influence the final parameter estimates relatively more. Informative priors have the greatest amount of influence on the final parameter compared to the other types of priors because they reflect the greatest amount of certainty in the population parameters (van de Schoot et al., 2014; van de Schoot & Depaoli, 2014). Researchers may select one of these types of priors as their first source of knowledge contributing to the final results.
The second source of knowledge, the observed data, is used to ask the question: “Given a set of parameters, such as the mean and/or the variance, what is the likelihood or probability of the data in hand?” (van de Schoot et al., 2014, p. 2). This information is combined with the information contributed by the priors to form the third piece of information involved in Bayesian estimation, the posterior distribution, which can be thought of as updated knowledge. It is a combination of the priors and the current data, with the current data being used to update the priors. The two are combined using Bayes’ Theorem, and the combination produces a probability distribution of parameters, or the posterior distribution.

To test difference between groups in the Bayesian framework using mixture modeling, we tested for measurement invariance of the attitudes about sex in committed relationships variable as well as structural invariance across all 10 groups. Due to the large number of subgroups, we evaluated measurement invariance by comparing the factor loadings for each subgroup to the mean of the factor loadings for all groups (B. O. Muthén & Asparouhov, 2014). None of the subgroups’ factor loadings were significantly different from the mean, so we constrained the factor loadings to be equal across the 10 groups. To test for structural invariance we used white women as our comparison group because it was the largest subgroup. To test for invariance, we took the difference of each group’s parameter and the comparison group’s corresponding parameter. All parameters for which that difference was not statistically significant were constrained to be the same as the white women, while those parameters for which the difference was significantly significant were left free to vary (see the superscripts in Table 2 for those parameters that were left unconstrained). In order to help the model converge, we used the p < .1 level of significance to decide which parameters to leave unconstrained.

Results
Missing data in Bayesian analyses are treated as unknown parameters and therefore did not pose any issue for the estimation. Model fit in a Bayesian framework, referred to as posterior predictive checking, evaluates how accurately the estimated model predicted the actual data. In other words, poor model fit would indicate a discrepancy between the data generated by the model and the observed data. While there are debates over the best model fit index for Bayesian estimation, the model fit index most commonly used in Bayesian estimation is the posterior predictive p-value (ppp). The ppp represents the frequency of parameters able to generate data that fits the observed data well in terms of chi-square discrepancy. A ppp value above .05 indicates acceptable model fit, though because it is based on the chi-square statistic, its power decreases with decreasing sample size (see B. O. Muthén & Asparouhov, 2012). Our overall ppp value was less than .05 (ppp = .000) due to necessary equality constraints placed on the error variances, but the values for all but three of the individual group models (black women, white women, and white men) were above .05 when estimated individually (see Table 2 for the ppp values). We continued with our model despite the ppp being significant for three of the individual group models because the ppp is a conservative index of model fit (Dahl, 2006).

Results by Hypothesis

Each of the six hypotheses were explored within the context of the intersection of race and gender. For that reason, results relating to the intersection of race and gender are detailed within each hypothesis.

Hypothesis 1. Even while controlling for other factors (such as education, income, age at time of survey, age at stepfamily formation, and whether or not they were currently in a committed relationship), we found that individuals who think committed relationships are important for sex will hook up less often. The association between attitudes about sex in
committed relationships and hooking up for black men ($\beta = -.53, p < .001$) and white men ($\beta = -.49, p < .001$) was significantly weaker than that for white women ($\beta = -.55, p < .001$), while the association was significantly stronger for multiracial women ($\beta = -.71, p < .001$) than white women. However, while there were some significant differences in effect sizes across race and gender, the association was strong and negative for all groups, with standardized coefficients ranging from -.39 to -.71 (p values all less than .001; see Table 2). This supports the RAA link between attitudes and behaviors, but also supports the cultural sensitivity we theorize about where variations by race and gender in these processes also exist.

**Hypothesis 2.** Emerging adults whose parents cohabited without remarrying (nonmarital cohabitation) did not have lower scores on their attitudes about sex in committed relationships when compared to those whose parents did not cohabit prior to remarrying. That finding was consistent across all 10 groups because none of the subgroups varied significantly from the white women, thus we did not find empirical support for the theoretical assumption that parental cohabitation without subsequent remarriage will significantly impact emerging adults’ attitudes about sex in committed relationships when compared to those whose parents did not cohabit prior to remarriage.

**Hypothesis 3.** On average, our third hypothesis was only supported for white men. White men whose parents cohabited prior to remarrying did have significantly lower attitudes about sex in committed relationships when compared to those whose parents did not cohabit prior to remarrying ($\beta = -.27, p < .001$). However, the other nine groups of the emerging adults whose parents cohabited prior to remarrying did not have lower scores on their attitudes about sex in committed relationships variable when compared to those whose parents did not cohabit
prior to remarrying. Thus, emphasizing again the importance of testing differences at the
intersection of race and gender to identify variations by group.

**Hypothesis 4.** Our fourth hypothesis was supported in all groups aside from the
multiracial women group. In the nine groups for whom it was supported, respondents whose
parents cohabited without remarrying (nonmarital cohabitation) were more likely to hook up
compared to those whose parents did not cohabit prior to remarriage ($\beta$ ranged from .32 to .84
with all p values less than .05). Although the association for white men, Latina women, and
multiracial men was in the same direction as the association for white women, it was
significantly weaker for white men ($\beta = .32, p < .05$) compared to white women ($\beta = .57, p <$
.001). On the other hand, the association was significantly stronger for Latina women ($\beta = .84, p$
< .001) and multiracial men ($\beta = .82, p < .001$) compared to white women.

Surprisingly, this association was reversed in the multiracial women group. For this
group, nonmarital parental cohabitation was associated with a lower likelihood of hooking up
compared to those whose parents remarried without cohabiting ($\beta = -.45, p < .01$). Because this
was an unexpected result, we returned to the original data file to verify that this negative
association was not a suppression effect. In examining the zero order correlations by group
between parental cohabitation choices and hooking up frequency, we found that a negative
association between those two variables did indeed exist in the original data for the multiracial
women group ($r = -.20, p = .35$).

**Hypotheses 5 and 6.** For all groups, respondents whose parents cohabited prior to
remarrying (premarital cohabitation) were more likely to hook up compared to those whose
parents did not cohabit prior to remarriage. The direct pathway from the premarital cohabitation
variable to the hooking up variable indicated a strong positive association for all groups aside
from the white men (β ranged from .21 to .82 with p values all less than .001), meaning that, for those nine groups, individuals whose parents cohabited prior to remarriage (premarital cohabitation) were more likely to hook up than individuals whose parents remarried without cohabiting. The association for black women (β = .70, p < .001), black men (β = .82, p < .001), Latino men (β = .73, p < .001), and American Indian women (β = .67, p < .001) was significantly stronger than the association for white women (β = .50, p < .001).

For white men the direct pathway was not significant (β = .16, p = .11). However, we established full mediation using a product of coefficients test (b = .19, p < .001). This means that for white men in our sample, those whose parents cohabited prior to remarriage tend to think a committed relationship is less important for sex compared to those whose parents remarried without cohabiting. Subsequently, thinking that a committed relationship is less important for sex is associated with more frequent hooking up. Or, in other words, white men whose parents cohabited prior to remarriage are more likely to hook up, and that association is explained by their attitudes about sex in committed relationships. Accordingly, our fifth hypothesis was supported by the results for all groups, and our sixth hypothesis was supported only by the results for the white men group.

Discussion

This research extended theorizing about the intersection of race and gender to family science by examining the association between the parents’ repartnering choices about cohabitation, emerging adults’ attitudes about sex in committed relationships, and hooking up. We evaluated the processes of the Reasoned Action Approach and Social Learning Theory in the understudied population of emerging adults who grew up in stepfamilies to explore these processes at the intersection of race and gender. This research establishes that, for emerging
adults raised in stepfamilies, attitudes about sex in committed relationships, and hooking up might be different for women and men, as well as for people of varying racial backgrounds. Being aware of these differences suggests a need to be more attentive and sensitive to gender and racial differences in research.

Despite variation in the strength of the association, there was a strong, negative association for all ten groups in our sample between attitudes about sex in committed relationships and hooking up. This means that, for our sample, the more one thought that a committed relationship was important for sex the less likely they were to hook up. This supports the Reasoned Action Approach (RAA) which suggests that attitudes predict behaviors. More specifically for our sample, both the RAA and our results suggest that one’s attitudes about commitment in relationships are associated with that individual’s commitment-related relationship behaviors. Though the theoretical framework is strong for this association, the empirical evidence is lacking. These results supply empirical evidence of the RAA, and further expand the literature by demonstrating how these associations vary at the intersection of race and gender.

There is an association between parental cohabitation choices and hooking up frequency for all 10 groups. That association varied somewhat across the intersection of race and gender. Perhaps one of the most important variations was found in our mediation testing. We examined whether or not attitudes about sex in committed relationships explained the relationship between parental cohabitation choices and hooking up as suggested by our theoretical framework. However, it only explained the relationship for white men, meaning that the combination of the RAA and SLT was valid only for white men.
For white men in our sample, these results indicate that parents’ attitudes about commitment in relationships as well as their commitment-related relationship behaviors might be modeled by their children. One way this could occur is that as the child observes his parents, he assimilates similar attitudes into his own behavioral beliefs and intentions, which subsequently influence his behaviors. For example, if a child observed parental premarital cohabitation, he might make the assumption that higher levels of commitment in relationships, such as those inherent in marriage (Stanley et al., 2004) are not necessary for sexuality in a relationship. With that assumption being part of his attitudes about commitment in relationships, his subsequent commitment-related relationship behaviors, such as hooking up, could be influenced.

Beyond the implications of this finding for white men, only finding this mediation among white men highlights an important issue in the field. Had our sample been a predominantly white sample, it is likely that only a gendered effect would have emerged, meaning that attitudes about sex in committed relationships would have explained the connection between parental cohabitation choices and hooking up frequency for men and not for women. The end conclusion therefore would have been that our theoretical model had potential to be accurate for all men. However, generally applying such findings to all men would have been erroneous according to the findings of the current study due to racial differences among men. Thus, this underscores the value of more nuanced research that takes race into account in conjunction with gender.

This leaves us lacking an understanding of what explains the connection between parental cohabitation choices and hooking up for everyone aside from white men. There is a strong association for all the other groups, but it seems our theoretical explanation that combined the RAA and SLT does not represent what is actually going on for most of our gender and racial
Among the differences we found in the association between parental cohabitation choices and hooking up, one of the more unexpected findings was among the multiracial women group. For all groups aside from the multiracial women group, nonmarital parental cohabitation was linked with a greater likelihood of hooking up compared to those whose parents did not cohabit prior to remarriage. However, this association was unexpectedly reversed for the multiracial women group. Instead, for the multiracial women in our sample, those whose parents cohabited without ever remarrying were less likely to hook up compared to those whose parents remarried without cohabiting. There appears to be another process going on that needs to be explored for the women in our sample that are of multiple races. It is possible that the meaning of nonmarital cohabitation is different for multiracial women. However, the dearth of theoretical and empirical work surrounding multiracial youths prevents us from being able to explain our finding. Because of this unexpected finding in our research, we recommend that future research work toward a greater understanding of multiracial individuals, who are part of a growing racial category that needs increased attention (J. Lee & Bean, 2012).

**Limitations and Future Directions**

Because our sample focuses on emerging adults raised in stepfamilies, and because our sample was not randomly selected, our findings cannot be generalized to everyone. Additionally, our cross-sectional design makes it difficult to establish the directionality of effects. For this reason, we recommend that future research on this topic include a longitudinal research design. Also, while our item assessing hooking up reflected the ambiguity of the behavior among emerging adults, a more nuanced definition of hooking up that would come
from distinguishing between hooking up behaviors may lend to greater understanding of the associations we studied. Because our research only allowed us to establish that differences exist between groups, we also recommend that future research explore why these differences exist.

**Conclusion**

In summary, there appears to be variation at the intersection of race and gender in the way that parents influence their children's attitudes and behaviors. We found an association between parental cohabitation choices and emerging adults' hooking up. For white men, this association might be explained by a combination of Social Learning Theory and the Reasoned Action Approach. Additionally, we found that emerging adults' attitudes about sex in committed relationships may be associated with their hooking up frequency. This research highlights a need for increased cultural sensitivity in research, as well as greater understanding of ways that family of origin can influence emerging adults' and behaviors related to commitment and sexuality.
References


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http://doi.org/10.1177/0192513X11408695
Table 1. Means, standard deviations, and ranges for all measured variables

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<thead>
<tr>
<th>Variables</th>
<th>Mean or n</th>
<th>SD or %</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hooking Up Frequency</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>762</td>
<td>77.05%</td>
<td>--</td>
</tr>
<tr>
<td>Once a month or less</td>
<td>149</td>
<td>15.07%</td>
<td>--</td>
</tr>
<tr>
<td>More than once a month</td>
<td>74</td>
<td>7.48%</td>
<td>--</td>
</tr>
<tr>
<td><strong>Attitudes about Sex in Committed Relationships</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Okay to hook-up just for fun and not expect anything</td>
<td>3.03</td>
<td>1.38</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Have sex even if it didn’t lead to a committed relationship</td>
<td>3.04</td>
<td>1.36</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Only have sex with committed boyfriend or girlfriend</td>
<td>3.05</td>
<td>1.34</td>
<td>1 - 5</td>
</tr>
<tr>
<td>People should only have sex after dating for a while</td>
<td>2.95</td>
<td>1.23</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Parental Premarital Cohabitation</td>
<td>534</td>
<td>53.99%</td>
<td>--</td>
</tr>
<tr>
<td>Parental Nonmarital Cohabitation</td>
<td>213</td>
<td>21.54%</td>
<td>--</td>
</tr>
<tr>
<td>Parental Remarriage without Cohabitation</td>
<td>242</td>
<td>24.47%</td>
<td>--</td>
</tr>
<tr>
<td><strong>Race x Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black women</td>
<td>67</td>
<td>6.77%</td>
<td>--</td>
</tr>
<tr>
<td>Black men</td>
<td>47</td>
<td>4.75%</td>
<td>--</td>
</tr>
<tr>
<td>Latina women</td>
<td>49</td>
<td>4.95%</td>
<td>--</td>
</tr>
<tr>
<td>Latino men</td>
<td>62</td>
<td>6.27%</td>
<td>--</td>
</tr>
<tr>
<td>American Indian women</td>
<td>102</td>
<td>10.31%</td>
<td>--</td>
</tr>
<tr>
<td>American Indian men</td>
<td>45</td>
<td>4.55%</td>
<td>--</td>
</tr>
<tr>
<td>White women</td>
<td>284</td>
<td>28.72%</td>
<td>--</td>
</tr>
<tr>
<td>White men</td>
<td>251</td>
<td>25.38%</td>
<td>--</td>
</tr>
<tr>
<td>Multiracial women</td>
<td>37</td>
<td>3.74%</td>
<td>--</td>
</tr>
<tr>
<td>Multiracial men</td>
<td>45</td>
<td>4.55%</td>
<td>--</td>
</tr>
<tr>
<td>Education</td>
<td>4.62</td>
<td>1.80</td>
<td>1 - 9</td>
</tr>
<tr>
<td>Income</td>
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<td>1.63</td>
<td>1 - 13</td>
</tr>
<tr>
<td>Age at Time of Survey</td>
<td>23.68</td>
<td>3.87</td>
<td>18 – 30</td>
</tr>
<tr>
<td>Age at Stepfamily Formation</td>
<td>8.54</td>
<td>4.61</td>
<td>0 – 30</td>
</tr>
<tr>
<td><strong>Current Relationship Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not in a Committed Relationship</td>
<td>506</td>
<td>51.16%</td>
<td>--</td>
</tr>
<tr>
<td>In a Committed Relationship</td>
<td>483</td>
<td>48.84%</td>
<td>--</td>
</tr>
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</table>
Table 2. Parameter estimates and posterior standard deviations for the ten groups.

<table>
<thead>
<tr>
<th></th>
<th>Black Women (n = 66; ppp = .046)</th>
<th>Black Men (n = 47; ppp = .432)</th>
<th>Latina Women (n = 48; ppp = .052)</th>
<th>Latino Men (n = 61; ppp = .070)</th>
<th>American Indian Women (n = 101; ppp = .064)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hooking-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes about Sex</td>
<td>-.958(.196)</td>
<td>-.410***</td>
<td>-.1290(.525)</td>
<td>-.534***</td>
<td>-.958(.196)</td>
</tr>
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<td>Parental Nonmarital Cohabitation</td>
<td>1.548(.351)</td>
<td>.434***</td>
<td>1.548(.351)</td>
<td>.680***</td>
<td>2.769(.856)</td>
</tr>
<tr>
<td>Parental Premarital Cohabitation</td>
<td>2.510(.651)</td>
<td>.697***</td>
<td>2.405(.736)</td>
<td>.815***</td>
<td>1.351(.338)</td>
</tr>
<tr>
<td>Attitudes about Sex</td>
<td>.077(.082)</td>
<td>.013</td>
<td>.077(.082)</td>
<td>.017</td>
<td>.077(.082)</td>
</tr>
<tr>
<td>Parental Premarital Cohabitation</td>
<td>.020(.085)</td>
<td>.051</td>
<td>.020(.085)</td>
<td>.083</td>
<td>.020(.085)</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hooking-up</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Age</td>
<td>-.084(.041)</td>
<td>-.091*</td>
<td>-.084(.041)</td>
<td>-.078*</td>
<td>-.084(.041)</td>
</tr>
<tr>
<td>Education</td>
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<td>-.319*</td>
<td>.065(.054)</td>
<td>.025</td>
<td>.065(.054)</td>
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<tr>
<td>Income</td>
<td>.106(.050)</td>
<td>.036*</td>
<td>.106(.050)</td>
<td>.058*</td>
<td>.106(.050)</td>
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<tr>
<td>Age at Stepfamily Formation</td>
<td>.019(.019)</td>
<td>.025</td>
<td>.019(.019)</td>
<td>.023</td>
<td>-.269(.180)</td>
</tr>
<tr>
<td>Committed Relationship</td>
<td>-.498(.179)</td>
<td>-.066**</td>
<td>1.559(.995)</td>
<td>.189*</td>
<td>1.564(.1074)</td>
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<tr>
<td>Attitudes about Sex</td>
<td>.050(.053)</td>
<td>.128*</td>
<td>-.056(.015)</td>
<td>-.130***</td>
<td>-.056(.015)</td>
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<td>-.055</td>
<td>-.050(.039)</td>
<td>-.049</td>
<td>-.050(.039)</td>
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<tr>
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<td>-.005</td>
<td>.201(.112)</td>
<td>.274*</td>
<td>-.006(.039)</td>
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<tr>
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<td>.020</td>
<td>.006(.013)</td>
<td>.020</td>
<td>.006(.013)</td>
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<tr>
<td>Committed Relationship</td>
<td>.285(.117)</td>
<td>.089**</td>
<td>.285(.117)</td>
<td>.085**</td>
<td>.285(.117)</td>
</tr>
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<td><strong>Parental Nonmarital Cohabitation</strong></td>
<td>.014(.011)</td>
<td>.066</td>
<td>.186(.049)</td>
<td>.531***</td>
<td>.087(.043)</td>
</tr>
<tr>
<td>Parental Premarital Cohabitation</td>
<td>.119(.119)</td>
<td>.056</td>
<td>1.008(.459)</td>
<td>.277*</td>
<td>.119(.119)</td>
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<tr>
<td>Age</td>
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<td>-.100*</td>
<td>-.025(.013)</td>
<td>-.070*</td>
<td>-.131(.057)</td>
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<td>Education</td>
<td>.087(.091)</td>
<td>.150*</td>
<td>.486(.125)</td>
<td>.582***</td>
<td>-.606(.027)</td>
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<tr>
<td>Income</td>
<td>.027(.029)</td>
<td>.034</td>
<td>.027(.029)</td>
<td>.045</td>
<td>.302(.211)</td>
</tr>
<tr>
<td>Age at Stepfamily Formation</td>
<td>.021(.009)</td>
<td>-.104*</td>
<td>-.021(.009)</td>
<td>-.079*</td>
<td>-.021(.009)</td>
</tr>
<tr>
<td>Committed Relationship</td>
<td>.119(.119)</td>
<td>.053</td>
<td>-1.125(.447)</td>
<td>.407***</td>
<td>.109(.087)</td>
</tr>
</tbody>
</table>

**Note.** ppp = posterior predictive p-value; b = unstandardized regression coefficient (Numbers in parentheses are posterior standard deviations), β = standardized regression coefficient; p = one-tailed p value; * = statistically significant difference in the specified parameter for this group from white women at the p < .05 level; ** = statistically significant difference in the specified parameter for this group from white women at the p < .05 level; *** = statistically significant difference in the specified parameter for this group from white women at the p < .05 level. Parameters without a superscript were constrained to be the same as the corresponding parameter for white women.
### Table 2 (continued). Parameter estimates and posterior standard deviations for the ten groups.

<table>
<thead>
<tr>
<th></th>
<th>American Indian Men (n = 44; ppp = .412)</th>
<th>White Women (n = 280; ppp = .000)</th>
<th>White Men (n = 249; ppp = .000)</th>
<th>Multiracial Women (n = 37; ppp = .336)</th>
<th>Multiracial Men (n = 45; ppp = .224)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>β</td>
<td>b</td>
<td>β</td>
<td>b</td>
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<td><strong>Direct Effects</strong></td>
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<td></td>
</tr>
<tr>
<td>Hooking-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes about Sex</td>
<td>-0.958(.196)</td>
<td>-0.456***</td>
<td>-0.958(.196)</td>
<td>-0.552***</td>
<td>-0.443(.098)</td>
</tr>
<tr>
<td>Parental Nonmarital Cohabitation</td>
<td>1.548(.351)</td>
<td>0.462***</td>
<td>1.548(.351)</td>
<td>0.573***</td>
<td>0.456(.278)</td>
</tr>
<tr>
<td>Parental Premarital Cohabitation</td>
<td>1.351(.338)</td>
<td>0.411***</td>
<td>1.351(.338)</td>
<td>0.500***</td>
<td>0.227(.220)</td>
</tr>
<tr>
<td><strong>Attitudes about Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Parental Nonmarital Cohabitation</td>
<td>0.77(.082)</td>
<td>0.013</td>
<td>0.77(.082)</td>
<td>0.013</td>
<td>0.077(.082)</td>
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<tr>
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<td>0.20(.085)</td>
<td>0.049</td>
<td>0.20(.085)</td>
<td>0.050</td>
<td>0.20(.085)</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
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<tr>
<td>Hooking-up</td>
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</tr>
<tr>
<td>Age</td>
<td>-0.084(.041)</td>
<td>-0.099*</td>
<td>-0.084(.041)</td>
<td>-0.108*</td>
<td>-0.013(.032)</td>
</tr>
<tr>
<td>Education</td>
<td>0.065(.054)</td>
<td>0.021</td>
<td>0.065(.054)</td>
<td>0.041</td>
<td>0.065(.054)</td>
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<tr>
<td>Income</td>
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<td>0.428***</td>
<td>1.06(.050)</td>
<td>0.64*</td>
<td>0.106(.050)</td>
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<tr>
<td>Age at Stepfamily Formation</td>
<td>0.36(.127)</td>
<td>0.505***</td>
<td>0.019(.019)</td>
<td>-0.019</td>
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</tr>
<tr>
<td>Committed Relationship</td>
<td>2.737(.960)</td>
<td>0.373***</td>
<td>0.498(.179)</td>
<td>-0.087**</td>
<td>0.498(.179)</td>
</tr>
<tr>
<td><strong>Attitudes about Sex</strong></td>
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<td></td>
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</tr>
<tr>
<td>Age</td>
<td>-0.056(.015)</td>
<td>-0.139***</td>
<td>-0.056(.015)</td>
<td>-0.125**</td>
<td>-0.056(.015)</td>
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<tr>
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<td>0.18*</td>
<td>-0.050(.039)</td>
<td>0.055</td>
<td>-0.117(.061)</td>
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<tr>
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<td>0.004</td>
<td>-0.006(.039)</td>
<td>0.017</td>
<td>0.006(.013)</td>
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<tr>
<td>Age at Stepfamily Formation</td>
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<td>0.018</td>
<td>0.006(.013)</td>
<td>0.017</td>
<td>0.006(.013)</td>
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<tr>
<td>Committed Relationship</td>
<td>-0.619(.551)</td>
<td>-0.178*</td>
<td>0.285(.117)</td>
<td>0.088**</td>
<td>0.285(.117)</td>
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<tr>
<td>Parental Nonmarital Cohabitation</td>
<td>0.040(.052)</td>
<td>0.160*</td>
<td>-0.013(.013)</td>
<td>-0.045</td>
<td>-0.013(.013)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.068(.034)</td>
<td>-0.076*</td>
<td>-0.068(.034)</td>
<td>-0.117*</td>
<td>-0.005(.053)</td>
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<tr>
<td>Income</td>
<td>0.053(.036)</td>
<td>0.058</td>
<td>0.191(.125)</td>
<td>0.086</td>
<td>0.053(.036)</td>
</tr>
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<td>Age at Stepfamily Formation</td>
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<td>0.062</td>
<td>0.014(.011)</td>
<td>0.056</td>
<td>0.014(.011)</td>
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<td>Committed Relationship</td>
<td>0.119(.119)</td>
<td>0.053</td>
<td>0.119(.119)</td>
<td>0.057</td>
<td>0.119(.119)</td>
</tr>
<tr>
<td>Parental Premarital Cohabitation</td>
<td>-0.25(.013)</td>
<td>-0.97*</td>
<td>-0.25(.013)</td>
<td>-0.087*</td>
<td>-0.21(.023)</td>
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<tr>
<td>Education</td>
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<td>-0.103*</td>
<td>-0.02(.027)</td>
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<tr>
<td>Income</td>
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<td>0.030</td>
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<td>0.045</td>
<td>0.027(.029)</td>
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<tr>
<td>Age at Stepfamily Formation</td>
<td>0.021(.009)</td>
<td>0.094*</td>
<td>-0.021(.009)</td>
<td>-0.087*</td>
<td>-0.021(.009)</td>
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<tr>
<td>Committed Relationship</td>
<td>0.109(.087)</td>
<td>0.048</td>
<td>0.109(.087)</td>
<td>0.052</td>
<td>0.109(.087)</td>
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</tbody>
</table>

**Note.** ppp = posterior predictive p-value; b = unstandardized regression coefficient (Numbers in parentheses are posterior standard deviations), β = standardized regression coefficient; p = one-tailed p value; * = statistically significant difference in the specified parameter for this group from white women at the p < .05 level; ** = statistically significant difference in the specified parameter for this group from white women at the p < .05 level; Parameters without a superscript were constrained to be the same as the corresponding parameter for white women. *** p < .001, ** p < .01, * p < .05.
Figure 1. Conceptual and hypothesized models.

Conceptual Model

Hypothesized Model

Notes. RAA = The Reasoned Action Approach; SLT = Social Learning Theory. Dotted lines represent moderation by the intersection of race and gender.