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**SOCIAL EXCHANGE AND THE PROGRESSION
OF SEXUAL RELATIONSHIPS IN EMERGING ADULTHOOD**

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Abstract

Research has extensively examined matching on race and other characteristics in cohabitation and marriage, but it has generally disregarded sexual and romantic relationships. Using data from the 2002 National Survey of Family Growth and the National Longitudinal Study of Adolescent Health, we examine the tempo of key transitions in the recent relationships of young adults aged 18 to 24. We focus on how the racial mix of partners in relationships is associated with the timing to sex, cohabitation, and marriage. We find evidence that relationships between white men and minority women proceed more rapidly than relationships involving other racial combinations from romance to sexual involvement and from sexual involvement to cohabitation. Our findings have important implications for social exchange perspectives on mate selection.

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In 1967, the U.S. Supreme Court overturned the legality of prohibiting interracial marriages (*Loving vs. the State of Virginia*), ruling that anti-miscegenation laws were unconstitutional. Since that decision, the number of mixed-race marriages has increased rapidly, rising from less than one percent in 1970 to more than five percent of all couples in 2000 (Lee and Edmonston 2005; Qian and Lichter 2007). Interracial cohabiting relationships have also proliferated. Between 1990 and 2000, the proportion of interracial cohabiting couples among U.S. born partners in their twenties increased from 9.64 to 14.02 percent, while interracial marriages among similar aged couples grew from 5.68 to 9.06 percent (Lichter and Qian 2004; Rosenfeld and Kim 2005).

Scholars have long viewed interracial relationships – especially couples involving black men and white women – as evidence of status-caste exchange (e.g., Merton 1941; Schoen and Wooldredge 1989). Specifically, minority men trade socioeconomic status for white women’s racial caste status. One drawback of social exchange perspectives on interracial involvement is that they fail to take into account resources that women may bring to relationships, such as physical attractiveness, sexual access, and domestic services. Because status-caste exchange perspectives focus on resources traditionally valued in men (i.e., education and income), they are less applicable to relationships involving white men and minority women. Although scholars have speculated that minorities exchange other resources, including attractiveness, to offset their racial caste status (i.e., Murstein, Merighi, and Malloy 1989; Yancey and Yancey 1998), studies concerning status-caste exchange continue to offer a one-sided view of exchange.

Another limitation of studies concerning status-caste exchanges is that they examine coresidential unions (typically marriage) and disregard romantic and sexual relationships (though see Blackwell and Lichter 2004). Because of marital delay, only small proportions of men and women in their late teens or early twenties – the age groups where racially heterogamous relationships are most common – are married (Joyner and Kao 2005). To the extent that status variables (e.g., race and class) are more critical in earlier stages of relationships, studies that begin with individuals who are already in coresidential unions are likely to underestimate their importance. Status variables have long been thought to shape first impressions and early encounters, in addition to the course of relationships (Kerckhoff and Davis 1962).

This article examines the tempo of relationship progression from romance to sexual involvement and from sexual involvement to marriage, cohabitation, or the dissolution of the relationship. We assess and extend theories of exchange and other less widely utilized perspectives on how gender, race, and status shape the progression of young adults’ sexual relationships. We restrict our study to young adults between the ages of 18 and 24, as younger Americans are the most likely to engage in romantic relationships that cross racial lines (Joyner and Kao 2005). Data from two recent sources, the National Survey of Family Growth (NSFG) and the National Longitudinal Study of Adolescent Health (Add Health), collect the dates of key events in sexual relationships, enabling us to both examine the tempo of relationships and corroborate findings across two different samples.

THEORETICAL BACKGROUND

Studies that focus on current dating, cohabiting, and married couples offer tantalizing hints that particular couple-level attributes influence progression of sexual relationships into marriage and cohabitation. Specifically, they find that while marriages are more racially homogamous than cohabiting and dating relationships (Blackwell and Lichter 2004; Joyner and Kao 2005; Rosenfeld and Kim 2005), the norm of racial homogamy cuts across all relationship types. This suggests that status hierarchies shape the developmental trajectories of sexual relationships that cross racial barriers, notwithstanding American’s increasing racial tolerance (Schuman et al. 1997). Drawing from perspectives that highlight exchange and other processes in the formation and dynamics of opposite-sex relationships, we develop hypotheses that address how racial homogamy influences the tempo of relationship progression from romance to sexual involvement and from sex to cohabitation, marriage, or dissolution.

Social Exchange and Interracial Marriage

Social exchange perspectives are typically invoked to explain homogamy on a variety of characteristics, including race. An assumption of these perspectives is that individuals are utility-

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maximizing and seek partners with the most desirable characteristics. As individuals with more desirable attributes pair off with each other, couples end up including partners who resemble each on different characteristics (Becker 1981; England and Farkas 1986). Numerous studies document assortative mating, or matching of partners on race and educational attainment (Fu 2001; Qian and Lichter 2007; Qian 1997; Rosenfeld 2005; Schwartz and Mare 2005). The persistence of a racial hierarchy, and its consolidation with economic status, reinforces patterns of racial homogamy. Within the U.S. mating context, blacks are perceived to be concentrated at the bottom, Asians and Latinos occupy an interim position, and whites are positioned at the top (Blumer 1958; Bonilla-Silva 2004).

Studying interracial marriage in a time when several states prohibited such unions, Davis and Merton proposed that these marriages must involve some sort of exchange, such as higher SES for higher racial caste (Davis 1941; Merton 1941). In the presence of racial barriers, the white spouse in an interracial relationship would experience a loss of social status from marrying a minority, but this loss would be offset if the minority partner had a higher SES. Other scholars suggest that third parties to interracial relationships are likely to assume, given the racial barriers to these relationships, that some overriding factor (e.g., a powerful sexual attraction) must have drawn partners together (Gaines and Ickes 1997).

More recently, scholars have suggested that while status-caste exchange may be applicable to some marriages involving whites and minorities, it is not the dominant tendency (Kalmijn 2010; Rosenfeld 2005). As evidence of this, marriages between whites and minorities are more likely to include partners with similar levels of education than to involve a white partner whose spouse has a higher level of educational attainment (Qian 1997; Rosenfeld 2005). Less attention has been paid to the gendered nature of exchange in interracial relationships. Because wives have historically derived their economic status from husbands, women are less able than men to use their economic status as a resource in exchange (Davis 1941; Jacobs and Labov 2002; Schoen and Weinick 1993).

Winnowing and Interracial Involvement

Studies that address status-caste exchange generally focus on married couples and do not explicitly consider the progression of relationships following their inception. This has been the emphasis of studies considering matching on a broader array of characteristics, including age, religion, and educational attainment (Blackwell and Lichter 2004). These studies find that married couples are more racially homogamous than cohabiting and dating couples. This suggests that interracial couples are less likely than same-race couples to proceed to marriage and are more likely to follow some other route (i.e., break up, persist as dating relationships, or transition to cohabitation). This sorting process, termed winnowing, appears in two different formulations. The stricter formulation presumes that the standards for what constitutes a good match become increasingly stringent with greater levels of involvement, while the looser formulation simply assumes that matching standards differ according to type of involvement.

Previous studies have used a variety of samples and comparisons to better understand winnowing processes. Some studies have compared racial homogamy across ongoing dating, cohabiting, and married relationships, excluding relationships that dissolve before the interview (e.g., Blackwell and Lichter 2004; Laumann et al. 1994). Joyner and Kao (2005) tracked same-race and interracial relationships from sexual involvement to co-residential union formation, but did not distinguish the timing to marriage versus cohabitation. Other studies examining union outcomes of interracial couples have included couples that have already made specific transitions, such as becoming a parent or forming a cohabiting union (Goldstein and Harknett 2006; Sassler and McNally 2003). Although these studies are informative, they offer only a cursory understanding of how joint partner characteristics influence the progression of relationships following their inception.

In their most basic formulations, social exchange and winnowing perspectives on interracial involvement are limited. Social exchange perspectives disregard resources valued in women and offer a static view of mate selection. Winnowing perspectives offer a dynamic view of matching, but their broad purview (i.e. matching on several characteristics) limits their explanatory power. An elaboration of both

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perspectives requires an understanding of the norms and meanings of sexual involvement and cohabitation and how they intersect with gender, race, and status.

Sexual Involvement

Research suggests that partners in heterosexual relationships often disagree about whether and when to engage in sexual relations, and that among couples that disagree, it is more often the case that the male partner desires sex earlier (Peplau, Rubin, and Hill 1977; Sprecher 1998). Gender differences in preferences for sexual activity imply that sex is a commodity women can exchange for status and other resources (Coleman 1966). The vast majority of studies concerning the initiation of sex in relationships, however, emphasize the entrenchment of gender norms. Male and female students generally expect men to take the lead in initiating dates and sexual advances (Laner and Ventrone 2000; Rose and Frieze 1989). A recent study of students at elite universities found that even when relationships do not begin with a traditional “date” (as with college hookups), men retained greater control over whether a romance ensued (England and Thomas 2006).

Even though men seemingly retain the prerogative to initiate relationships, and can try to persuade women to have sex with them through investments and commitment, women have the power to accept or refuse sex (Baumeister and Vohs 2004). In other words, women are the “gatekeepers” of sexuality. In support of this notion, research finds that several variables (e.g., religiosity, sexual experience, and number of weeks before individuals expect to have sex in a relationship) are significantly correlated with the timing of sex for women but not for men (Cohen and Shotland 1996; Peplau et al. 1977). Although men’s and women’s expectations about the appropriate waiting time for sex may be influenced by status differentials between partners (Baumeister and Vohs 2004),¹ they are also shaped by group norms. Nationally-representative studies of youth report that the waiting time to sex differs by race, with black women progressing to sexual activity most rapidly, followed by Hispanics, whites, and Asians (Cavanagh 2007; O’Sullivan, Cheng, Harris, and Brooks-Gunn 2007). Social class also differentiates relationship progression; youth from more economically advantaged backgrounds defer sexual debut longer than their less advantaged counterparts (O’Sullivan et al. 2007) and are more likely to initially enter marriages than cohabiting unions (Cavanagh 2007; Sassler and Goldscheider 2004).

Cohabitation

How, exactly, does cohabitation fit into exchange and winnowing processes? Cohabitation, like marriage, may be more advantageous than dating, as it provides the benefits of intimacy and economies of scale. Cohabitors engage in sexual activity much more frequently than their dating or married counterparts (Laumann et al. 1994; Waite 1995); however, they are less likely than married couples to pool resources or hold joint bank accounts (Heimdal and Houseknecht 2003). Though cohabitation involves fewer expectations for specialization in traditional gender roles (Schoen and Weinick 1993), cohabiting women still spend considerably more time in housework than do men (Gupta 1999; Shelton and John 1993). Schoen and Weinick (1993) argue that cohabitation is a different type of bond than marriage, as cohabiting individuals are more concerned than married individuals with partners’ short-term ability to contribute economically to a relationship rather than with longer-term kinship issues. They may also be less preoccupied with a partner’s ascribed characteristics, such as their race.

The formation and dynamics of cohabiting relationships depend on the functions cohabitation serves for individuals. Much of the research on cohabitation in the U.S. concludes that it is more an alternative to being single than a precursor to marriage (Heuveline and Timberlake 2004; Sassler 2004). More recently, scholars have suggested that these meanings are gendered (Brown 2000; Schoen and Weinick 1993). Cohabiting women are more committed to the future of their relationship than are cohabiting men (Rhoades et al., 2006). Upon entering into shared living cohabiting men’s time spent in domestic labor decreases, on average (Gupta 1999). Furthermore, while men with the lowest commitment to their relationships spend the least time on housework, cohabiting women’s housework time is not affected by marital intentions (Ciabattari 2004). Men also control the progression of relationships to more formal unions due to hegemonic prerogatives surrounding proposals (Sassler and

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Miller forthcoming). Reflecting the possibility that men benefit more than women from cohabitation, there is evidence across multiple data sets and age groups that men view cohabitation in a more positive light than do women (Manning, Longmore, and Giordano 2007; Thornton and Young-DeMarco 2001).

THEORETICAL FRAMEWORK AND HYPOTHESES

Our goal is to better elucidate social exchange and winnowing processes by focusing on relationship tempo among young adults in their most recent relationships. As mentioned earlier, cross-sectional assessments of existing coresidential unions (particularly marriages) typically do not include sexual relationships that do not result in marriage or even cohabitation. They also overlook resources that women have traditionally exchanged in relationships. Any assessment of the operation of status-caste exchanges must take into account a broader range of relationships and examine the tempo at which they progress and how they resolve.

Social exchange perspectives suggests that both gender and race/ethnicity will be important in determining how rapidly relationships progress. With regards to gender, it implies that relationships will proceed more rapidly in couples when the man has higher status than the woman, because women from lower status groups will compete with their higher status counterparts through an accelerated progression into sexual involvement and shared living. Assuming race is a major status marker, we predict that relationships between white men and minority women will progress at a more rapid pace than same-race relationships, and conversely, relationships between minority men and white women will progress at a slower pace than same-race relationships. This leads to our first hypothesis:

Hypothesis 1: The tempo to sex and cohabitation will be fastest for relationships involving white men and minority women and slowest for relationships involving white women and minority men.

The winnowing perspective, in its stricter form, suggests that heterogamous relationships are less likely than homogamous relationships to advance to greater levels of involvement. Therefore, we expect a slower progression from sex to marriage among interracial couples than among racially homogamous unions. The progression from sex to cohabitation, on the other hand, depends on the meaning of cohabitation. To the extent that cohabitation is simply an alternative to sexually involved dating relationships, we expect racial homogamy to have little influence on the timing to cohabitation. If cohabitation serves as a precursor to marriage, then we expect to find heterogamous relationships proceeding more slowly to cohabitation. Our second hypothesis, based on the most straightforward prediction of winnowing, distinguishes marriage from other types of involvement:

Hypothesis 2: Interracial relationships will progress more slowly from sexual involvement to marriage than racially homogamous couples.

A third alternative is also possible. Previous research suggests that cohabitators are selectively different from those who choose to marry directly. They have lower socioeconomic status and are less likely to have grown up in intact families (Sassler and Goldscheider 2004). They also adhere to less traditional views regarding gender roles and marital permanence (Clarkberg, Stolzenberg, and Waite 1995). Rosenfeld and Kim (2005) argue that greater autonomy from parents enables young adults to experiment with different kinds of romances, especially cohabitation and interracial relationships. Under this premise, interracial couples will move faster to cohabitation than same-race couples due to factors that jointly influence union formation and mate selection. The selection argument motivates a third hypothesis:

Hypothesis 3: Some factors increase involvement in different types of relationships (e.g., interracial romances) and hasten sexual involvement and shared living, producing spurious effects.

DATA AND METHODS

Data and Samples

Data for our analyses of young adults comes from the 2002 National Survey of Family Growth (NSFG) and the National Longitudinal Study of Adolescent Health (or Add Health). The 2002 National Survey of Family Growth is a nationally representative cross-sectional sample of 7,643 women and 4,928 men aged 15 to 45; it excludes the military and incarcerated population (Lepkowski et al. 2006). Add Health is a school-based study of adolescents who were in grades seven through twelve when selected to participate in the survey (Harris et al. 2003). Based on school rosters, Add Health selected a nationally representative sample of 20,745 students to participate in an in-home interview in 1994 and 1995. In 2001 and 2002, Add Health re-interviewed 15,197 of the Wave I in-home respondents. The Wave III interview of Add Health and the 2002 NSFG are some of the first nationally representative surveys to collect information on respondents' recent opposite-sex sexual partners, regardless of whether or not they extended into the last year.² Both the NSFG and Add Health additionally ask whether these relationships eventuated in cohabitation and marriage, and if so, the dates of these events. Utilizing both data sets allows us to corroborate our findings. Since most of the Add Health respondents were between the ages of 18 to 24 at the time of the recent interview, we restrict the samples from both surveys to respondents in this age range. We further limit the scope of most analyses to the last or current (most recent) sexual partner, because the NSFG male questionnaire did not collect information on race of prior partners. Unfortunately, we are unable to utilize the 2002 NSFG data on women for parallel analyses, as the women's data only contained information on race of partner for current relationships.

Those who are missing data on their own or their partner's race are excluded from our samples. We also exclude respondents who report they are Native Americans, or who have a Native American partner, because of the ambiguity in defining this racial category and its small size. Last, we omit respondents who are missing data on the start of their relationship or key events (if applicable), such as when they moved in with or married a partner or when the sexual relationship ended. Our analyses of relationship transitions utilize data from 943 men from the NSFG, 3,790 men from Add Health, and 4,746 women from Add Health. The fixed-effects models are run for 24,527 relationships of men and women from Add Health.³

Dependent Variables

We use two different indicators of the timing to sexual involvement. One indicator is based on a question of how long respondents were acquainted with their partner prior to engaging in sexual relations. As in a previous study relying on a similar item (Laumann et al. 1994), we collapse some of the categories to allow for greater parsimony in the presentation of results. We also constructed an alternative measure of the number of months between the beginning of the romantic and sexual relationship; respondents who began having sex before romance or who indicated their relationship was sexual but not romantic are coded as having sex in the first month of the relationship. Since the NSFG did not ask respondents about timing to sex, our analyses of sexual tempo are limited to Add Health.

Our survival analyses of relationship transitions following entrance into sexual involvement treat cohabitation, marriage, and dissolution as competing risks and estimate a separate model for each of these outcomes (Allison 1995). For respondents who enter cohabiting unions, marry, or dissolve their relationships we measure the number of months between the formation of the sexual relationship and the first of these three events. Those who remain sexually involved but do not coreside contribute the number of months between the formation of the relationship and the date of the interview. Our models censor respondents when they experience an alternative event to the one in question. Those who do not experience an event are censored at the interview date.

Independent Variables

Based on their self-designated race and Hispanic status, we divide respondents and partners into four mutually exclusive groups: white, black, Hispanic, and Asian. Those who self-identify as Hispanic

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are defined as Hispanic, regardless of their race. These categories are consistent with those of previous studies focusing on interracial marriage (Harris and Ono 2004; Qian and Lichter 2007).

For white respondents, we distinguish those who have a minority partner with a single indicator; homogamous relationships serve as the reference category. For minority respondents (i.e., blacks, Hispanics, and Asians), we use one indicator variable to distinguish those who have a white partner and another to demarcate respondents with a minority partner of a different race; respondents with same-race minority partners serve as the reference group. Although previous studies addressing the winnowing perspectives simply distinguish between same-race and interracial relationships for minorities, we distinguish white partners from other different-race partners because of whites' dominant position in the racial hierarchy. Small cell sizes preclude us from being able to distinguish the race of minority partners in all of the analyses.

Control Variables

We include controls variables that are available in both data sources and that refer to the period before the sexual relationship was formed. The set of control variables consists of age, race (for minorities), maternal education, nativity, adolescent family structure, church attendance, virginity status, age at first sex, the number of previous sexual partners (logged), and any cohabitation experience prior to the most recent relationship. These variables take into account factors that affect both the likelihood of forming an interracial relationship and the timing to union formation in relationships.

Analysis Plan

Focusing on most recent sexual relationships, we first calculate the duration from romantic to sexual relations for different combinations of relationships. Next, we estimate proportional hazards models that formally test whether racially homogamous and heterogamous sexual unions differ in their timing from sexual involvement to cohabitation, marriage, and dissolution, before and after controlling for demographic variables. Additionally, we estimate fixed-effects proportional hazards models that examine differences in timing within individuals between their racially homogamous and heterogamous sexual unions, based on a sample that includes all of the sexual relationships for Add Health respondents. Taken together, these analyses enable us to assess whether and how racial hierarchies influence union outcomes of contemporary young adults.

RESULTS

Descriptive Results

Table 1 displays weighted descriptive statistics for the variables included in our models of relationship transitions following sexual involvement. Assuming exchange processes differ by race, our analyses separate non-Hispanic whites from minorities. We pool minority respondents (those who are non-Hispanic black, Hispanic, and Asian), as the numbers of representatives of these groups are small, especially in the NSFG. The statistics are also broken down by survey; statistics for Add Health are additionally stratified by biological sex.

[TABLE 1 ABOUT HERE]

The first panel presents information on the race of partner, for both white and minority respondents, by data source and sex (in the case of Add Health). These figures indicate the proportion of most recent sexual relationships that are heterogamous. While there are some differences in the proportion of men reporting a partner of opposite race across the surveys, they do not attain statistical significance. Comparing men and women from Add Health reveals that minority men are considerably more likely than minority women to report having a white partner (.223 vs. .117). Subtle differences in the way the two surveys collected information make comparisons across many of the control variables difficult. It is worth noting the lack of significant differences across data sets for most variables.

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Table 2 shows the results for the timing to sex in relationships for men and women of different racial groups; these results are broken down according to whether respondents had a different-race partner (i.e., minority partner for whites, white partner or different-race minority partner for Blacks, Hispanics, and Asians) versus a same-race partner. The final row in each panel presents the outcomes for racially homogamous relationships. Consistent with Hypothesis 1, we find evidence that sex occurred most rapidly in relationships involving white men and minority women. For instance, on average white men waited about one month before having sex with a minority partner, but waited roughly two months before having sex with a white partner. Using two different measures of waiting time to sex, white men move significantly faster to sex with minority partners than with white partners. Results for specific groups of minority women are symmetric. Minority women, regardless of their race, generally have sex earlier with a white partner than with a same-race partner; however, the results for minority women fail to reach statistical significance due to the small cell sizes. The results for both measures fail to offer any evidence that white women have sex slower with minority men than with white men, weakening support for Hypothesis 1.

[TABLE 2 ABOUT HERE]

How did respondents' most recent sexual relationships progress? Table 3 displays the proportion of each group that experiences each of the competing risk outcomes. Over one-half of young adults' most recent sexual relationships are either ongoing sexual non-coresidential relationships or have dissolved by the time of interview; these couples would be absent from extant studies of status-caste exchange. Table 3 also reveals rather sizeable differences across surveys. Roughly ten percent of NSFG men marry their partner without living with them first, while about five percent of Add Health men and eight percent of Add Health women fall into this category.⁴ As for other relationship outcomes, Add Health men are more likely than men from the NSFG to have entered cohabiting unions, though this difference is significant only for white men.⁵

[TABLE 3 ABOUT HERE]

Multivariate Results

Table 4 displays the results for the conventional and fixed-effects proportional hazards models. We present the hazard ratios (i.e., the exponentiated estimates) for the racial homogamy indicators across the three different competing risks. Two models are presented for each potential outcome. Model 1 includes only the parameter(s) for racial heterogamy. Model 2 includes control variables for the age when the relationship began, race (for minority respondents), maternal education, nativity, family structure, church attendance, age at first sexual intercourse, number of previous sexual partners (logged), and prior cohabitation experience. To take into account both studies' complex designs, these conventional models are weighted and robust standard errors are estimated (taking into account the clustering of individuals within their primary sampling units). Model 3, estimated only for Add Health respondents, shows these hazards for the fixed-effects proportional hazards model that does not include control variables (as they generally do not differ across relationships). Each panel pertains to a different set of respondents: white men from the NSFG; white men from Add Health; minority men from the NSFG; minority men from Add Health; white women from Add Health; and minority women from Add Health. For ease of presentation, we do not present the coefficients for the other independent variables.

[TABLE 4 ABOUT HERE]

In the conventional models estimated for whites, hazard ratios greater than 1 indicate the duration to a given outcome is faster for white respondents with minority partners than for white respondents with white partners; hazards less than 1 indicate slower timing with minority partners than with white partners. In the models estimated for minorities, the hazard ratios have a similar interpretation, but the emphasis is

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on how much faster (or slower) the tempo is with white partners and different-race minority partners relative to same-race minority partners.

Focusing first on cohabitation indicates that white men from the NSFG move significantly faster to cohabitation if they have a minority partner than if they have a white partner, providing support for Hypothesis 1. Specifically, the hazard of cohabitation for white men based on Model 1 is 58.7 percent (i.e., $[1.587 - 1] * 100$) higher if they have a minority partner than if they have a white partner. Similarly, white men from Add Health move significantly faster to cohabitation if they have a minority partner, but the hazard ratio is smaller in magnitude (1.363). Contrary to Hypothesis 1, there is evidence that minority men move significantly faster to cohabitation with white partners than with same-race partners, but only among NSFG respondents. The pace to cohabitation for white women does not differ significantly by the type of partner; however, minority women cohabit significantly faster with white men than with same-race partners.

The models of cohabitation just discussed do not include control variables, so the faster pace of relationships involving whites and minorities may be spurious. After the set of control variables is added to the model (Model 2), we witness a faster pace into cohabiting unions among white men in the NSFG who partner with minority women, but the difference in the hazard rate reaches significance only at the $p < .10$ level. Results are more robust upon examining outcomes for white men in Add Health, as they continue to move faster to cohabitation with minority partners than with white partners. The hazard rate for white men from Add Health is 39.4 percent higher if they have a minority partner than if they have a white partner. The coefficient for minority men in the NSFG with white partners becomes insignificant at conventional levels. The results for white women in Add Health do not change upon including controls, indicating that the pace to cohabitation for white women does not differ significantly by the type of partner. The results for minority women from Add Health, however, now fail to corroborate the findings for white men. In Model 2, minority women do not have a significantly higher hazard rate for cohabitation if they are paired with white men than if their sexual partner is a minority.

To further assess the possibility that selection might account for the more rapid transition of certain couples into cohabitation (Hypothesis 3), we utilize fixed-effects proportional hazards models that pool all sexual relationships for Add Health respondents (Model 3). Estimating a separate baseline hazard for each respondent, these models take into account all unmeasured stable characteristics of respondents (Allison 2005). Rather than estimate changes in the hazard as a function of differences across individuals, as the previous models do, fixed-effects models estimate these changes as a function of differences within individuals. Specifically, they reveal the change in hazards as whites move from white partners to minority partners and as minorities change from same-race minority partners to white or different-race minority partners.⁶

Results of the fixed-effects models are generally consistent with those from conventional models that include control variables. White men from Add Health progress at a significantly faster pace into cohabitation when their partner is a minority woman than when she is white (i.e., their hazard rate is 77.1 percent higher). The fixed-effects results for minority women parallel these; minority women from Add Health move significantly faster to cohabitation in their relationships with white men than with minority men. For minority women and white men alike, the hazard ratios are greater in magnitude in the fixed-effects specifications of the proportional hazards models than in the conventional specifications. Even though the hazard ratios exceed one for minority men and white women, they never attain statistical significance. These results cast doubt on the likelihood that selection accounts for the more rapid transition into cohabitation among mixed-race couples consisting of white men with minority partners.⁷

We also ran additional models (not shown) examining whether the effect of having different types of partners on the timing to cohabitation differs according to family socioeconomic status using a measure specific to Add Health (see Bearman, Moody, Stovel 2004). The results of these models suggest that lower SES women (but not higher SES women) move significantly faster to cohabitation with white men than with minority men, and this effect is not spurious. Supplementary analyses (not shown) measuring the Wave III characteristics of respondents in different types of relationships reveal two intriguing patterns. First, minority women who pair with white men are quite select in terms of how interviewers

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rated their attractiveness. They are more likely to be rated attractive than women in every other type of couple (e.g., white women with white partners or minority women with minority partners). Second, earnings are most disparate between minority women who report having white partners and white men who report having minority partners; consequently, having a white partner may be an economic boon for minority women. These two patterns are especially pronounced among respondents from lower SES backgrounds. These results are consistent with a social exchange perspective; lower SES minority women compensate for their lower racial caste and earnings by engaging resources traditionally valued in females (i.e., attractiveness, sexual access, and domesticity). They are also in line with findings from earlier studies of mate selection that suggest that women from lower SES backgrounds rely on physical attractiveness to obtain a husband who has higher socioeconomic status (i.e., Elder 1969; Taylor and Glenn 1976; Udry 1977).

We present results for our second outcome, marriage, only for respondents from Add Health; there were too few relationships that transitioned directly to marriage in the NSFG. Because fixed-effects models are more difficult to estimate when the number of events is small, we do not estimate models of marriage for the Add Health men and women. The results from Model 1 reveal that relationships between minorities and whites, as well as relationships between different-race minorities, move slower to marriage than do same-race relationships, providing support for Hypothesis 2. The consistently low hazard ratios suggest that the lack of significance is due to the small degree of precision. The fact that the significance levels are highest for the group that is most likely to marry (i.e., white women) is also evidence of this. As for the third outcome, relationship dissolution, results from the fixed-effects models indicate that minority men with different-race minority partners break up significantly faster than do minority men with same-race minority partners. White women also end their sexual unions with minority partners more rapidly than they do their relationships with white men, though this effect is only weakly significant.

CONCLUSION

Sociologists have long viewed relationships that cross race lines as examples of status-caste exchange. Interracial marriages have increased dramatically over the past few decades, and cohabiting unions are even more likely to involve partners from different racial backgrounds. By excluding sexual relationships that do not become co-residential, prior studies offer a limited view of social exchange and winnowing processes. Using data from the NSFG and Add Health, we were able to conduct analyses for young adults of the timing from romance to sexual involvement, as well as the timing from sex to cohabitation, marriage, and dissolution.

A previous study following sexual relationships over time found no significant differences between interracial and same-sex couples in the timing and likelihood of forming a co-residential relationship (Joyner and Kao 2005). Our analyses, which differentiated the timing to cohabitation and marriage, indicate that different mechanisms shape entrance into cohabitation and marriage. They reveal that relationships between white men with minority women progress at a more rapid pace into sexual involvement and cohabitation than racially homogamous unions, though their faster pace is not always statistically significant. We were able to run parallel analyses of the timing from sexual involvement to cohabitation for male respondents from Add Health and the NSFG. In both of these surveys, white men with minority partners moved significantly faster to cohabitation than white men with white partners. These findings provide support for the operation of a status-caste exchange (Hypothesis 1) and highlight the importance of examining the progression of sexual and romantic relationships.

Our results also provide support for the winnowing perspective with regards to marriage (Hypothesis 2). Among white women from Add Health, those in interracial unions progress at a significantly slower pace into marriage than do racially homogamous couples. The effects of having a different-race partner on the timing to marriage were less consistent for other groups of respondents from Add Health (i.e., white men and minorities), partly reflecting the small number of interracial relationships that transitioned into marriage. We were not able to examine how the timing to marriage differed according to the racial mix of partners in the NSFG because sample sizes were considerably smaller in this data set.

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Finally, our results indicate that selection alone cannot explain the more rapid entrance into sexual involvement and shared living for couples involving white men and minority women (Hypothesis 3). We found evidence of an accelerated pace for these couples in models including a rich set of control variables, and alternatively, in models exploiting variation in partner race for respondents who reported having more than one relationship.

These results reveal how status and race privilege white men, who are able to trade off their race for a shorter waiting period to sexual involvement with minority women, as well as an expedited entrance into shared living and the benefits it confers. Women, no doubt, also gain in various ways through shared living. Our results also suggest economic exchange as a motivator for forming cohabiting unions. Women continue to earn less than men (Blau and Kahn 2006), and qualitative studies of cohabitators have found that women are more likely than men to report they raised the idea of living together because of housing exigencies or financial need (Sassler and Miller forthcoming). We find confirmatory evidence of this economic imperative for cohabitation in the analyses (discussed earlier); it was primarily minority women from lower SES family backgrounds who moved significantly more rapidly into cohabitation with white partners than minority partners. Furthermore, among respondents from lower SES backgrounds, minority women partnered with white men received the highest values on interviewer-rated physical attractiveness, while white men with minority women reported the highest personal income. While “solidarity and affection and personal choice” no doubt remain important aspects of relationships (Rosenfeld 2005, p. 1320), there is also strong evidence of status exchange.

Contrary to our expectations, our analyses indicate that minority men and white women do not progress any more slowly into sexual involvement or cohabiting unions than they would with partners of the same race. Interracial couples where the male partner is a minority apparently do not alter their relationship tempo to offset the man’s lower racial status. Race status appears to operate differently for women than for (white) men. Minority men partnered with white women, however, are likely to have economic resources that are comparable or greater than those of their white male counterparts, which might enable them to compete on par with white men.

What else might account for the more rapid progression into cohabitation among white men who are romantically and sexually involved with minority women? Vaquera and Kao (2005) find that adolescents in interracial relationships report fewer public displays of affection than their counterparts in same-race relationships. They are less likely to tell others they are a couple, go out together in a group, and meet their partners’ parents. Couples who feel socially awkward in public may consequently spend more time alone together. This in itself could speed up the relationships’ tempo, as qualitative research finds that many young adults justify moving in together because they already spend so much time with their partner (Sassler 2004). If this explanation was plausible, however, we would also expect to find minority men moving more rapidly into cohabitation with white partners than with same-race partners.

Increases in romantic relationships that cross racial lines are often interpreted as indicators of declining social distance between race groups in the United States. Such unions are evidence of the growth in primary relationships between members who differ, at least in terms of the color of their skin. Nonetheless, the differential rates of relationship progression reported here have important implications for union stability, family formation, and inter-group dynamics. Rapid relationship progression is associated with poorer relationship quality and greater volatility (Stanley et al. 2006; Surra and Hughes 1997). With less time to gather information on a prospective partner, and ascertain whether goals and values are compatible, interracial couples may be less able to weather the challenges that all relationships face. But interracial relationships are not like all relationships, in that couples generally perceive less acceptance and encouragement from family and friends (Vaquera and Kao 2005). The greater concentration of interracial couples in cohabiting unions further challenges their likelihood of success, as cohabitators receive less support from family and community (Hohmann-Marriot and Amato 2008). Additionally, young cohabiting women have higher contraceptive failure rates than do married women and those not in coresidential relationships. Rates of unintended pregnancy and abortion are particularly high among cohabiting women who are younger and have less than a college degree (Finer and Henshaw 2006; Fu et al. 1999). Hurried relationship progression, cultural differences, and perceptions of societal

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disapproval may all challenge couples' ability to discuss issues relating to reproductive health, contraception, and marital plans. Additionally, power dynamics established at the relationship's beginning may persist into other stages.

Our study is not without limitations. Although the findings suggest racial heterogamy influences the timing to marriage, our age range is limited. Marital delay and the increase in cohabitation highlight the need to go beyond the age group studied here. Notwithstanding the sample size of the Add Health data, there are too few interracial partnerships of particular combinations to assess if relationship tempos vary by race of partner or to assess the progression from cohabitation to marriage. We are also unable to determine which partner in cohabiting relationships raised the possibility of living together, as data on which partner initiated various relationship stages is not collected in either survey. Nonetheless, numerous studies find the balance of power in romantically involved couples favors men (Peplau, Rubin, and Hill 1977; Sassler and Miller forthcoming; Sprecher and Felmlee 1997). We interpret our results in a similar light, though we cannot reject the possibility that the role of initiator and pursuer might differ for interracial and same-race couples. Finally, neither data set includes time-varying measures of partners' education and income, factors that shape relationship development and progression into marriage.

Importantly, our study finds that the racial mix of partners influences the timing of events in relationships. Clearly, further attention to various aspects of romantic relationships is warranted if we are to better understand the nature of social exchange between men and women. Our results provide hints about why interracial relationships may be less likely to progress from cohabitation to marriage and more likely to break up if they do marry. More information about the factors influencing the progression of interracial intimate relationships is necessary to improve our knowledge about the nature of status exchange and the reconfiguration of racial hierarchies.

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Endnotes

1. Female followers of music or sports celebrities (often called “groupies”) offer a prime example of how status differences are linked to sexual behavior. Groupies increase their opportunities to interact with male celebrities precisely because they offer sex on demand (Baumeister and Vohs 2004; Wedgwood 2008).
2. We focus on respondents with recent partners of the opposite sex. Unlike Add Health, the NSFG does not collect analogous information on same-sex partners.
3. To estimate the fixed-effects survival models, we include all the sexual relationships that Add Health respondents report having since the Wave I interview.
4. The differences between NSFG and Add Health men may result because Add Health draws from a school-based population that excludes high school drop-outs. Additional analyses (not shown) suggest that these differences are not a consequence of excluding respondents with missing data on key dates.
5. Add Health respondents are more likely than men in NSFG to report cohabiting with their most recent sexual partner. The NSFG asked respondents if they had ever lived with a female sexual partner, defining living together as having a sexual relationship while sharing the same usual residence. Add Health simply asked respondents if they had ever lived with each of the sexual and romantic partners they enumerated. We surmise that Add Health respondents who spent considerable time with sexual partners may classify these relationships as cohabitation, given the absence of a clarifying question specifying same residence.
6. We cannot estimate fixed-effect models with the NSFG data; race of partner information was not available for prior sexual relationships.
7. In additional models estimated for Add Health men (results not shown), we include several supplementary variables to further rule out selection arguments (Hypothesis 3): differences in the educational attainment of partners; conventionality (based on a scale comprised of items such as, “your behavior often depends on how you think other people want you to behave”); attitudes towards cohabitation and interracial relationships; interstate mobility; and region of country and metropolitan status in adolescence. None of these variables substantially explains the faster progression to cohabitation among Add Health couples involving white men and minority women.

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Table 1. Samples Means for Sexually Involved Respondents Aged 18-24 from NSFG and Add Health

<i>Variable</i>	NSFG Men		Add Health Men		Add Health Women	
	White	Minority	White	Minority	White	Minority
Race of partner						
Minority partner	.114	---	.098	---	.114	---
White partner	---	.161	---	.223	---	.117 *
Different-race minority partner	---	.087	---	.077	---	.103
Race of respondent						
Black	---	.392	---	.477	---	.501
Hispanic	---	.514	---	.405	---	.385
Asian	---	.094	---	.118	---	.114
Age at beginning of sexual relationship	19.425	19.062	19.410	18.976	18.955 *	18.741
Maternal education						
Less than high school degree	.066	.325 *	.080	.227	.090	.237
Only high school degree	.320	.299	.291	.207	.311	.245
Associates degree	.324	.187	.295	.235	.264	.213
Bachelor's degree	.281	.156	.248	.151	.228	.133
Missing maternal education	.009 *	.033 *	.086	.180	.107	.172
Foreign born	.040 *	.336 *	.010	.146	.013	.155
Family structure in adolescence						
With both biological parents	.704 *	.673 *	.633	.437	.600	.443
Living with step & biological parents	.107	.071 *	.148	.142	.148	.111
Living with a single parent	.161	.210 *	.189	.337	.215	.378
Living in other arrangement	.029	.047	.030	.084	.037	.068
Never attended church in adolescence	.219 *	.129	.140	.095	.108	.073
Age at first intercourse	16.806	15.746	16.763	16.143	16.370 *	16.270
Number of previous sex partners	5.128	6.965	5.257	6.094	4.554	4.232 *
Ever cohabited before relationship	.105	.148	.152	.173	.195 *	.170
N of cases	527	416	2,230	1,560	2,747	1,999

Notes: Estimates are weighted. Significance tests indicate whether value is significantly different from same racial status group of Add Health men (i.e., white men or minority men) based on t-tests that take into account design effects.

* $p < .05$ (two-tailed tests)

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Table 2. Length of Acquaintance / Romance Before Sex by Race of Respondent and Partner: Respondents from Add Health

<i>Racial Group</i>	Men				Women			
	Unweighted Ns for Two Measures	Time Knew Partner Before Having Sex		Months of Romance Before Sex	Unweighted Ns for Two Measures	Time Knew Partner Before Having Sex		Months of Romance Before Sex
		Less Than One Month	A Year or Longer			Less Than One Month	A Year or Longer	
<i>White Respondents</i>								
Partner of any race	2358 / 1997	0.435	0.191	2.013	2870 / 2550	0.338	0.220	2.230
Minority partner	230 / 196	0.513 *	0.117 *	1.233 *	357 / 302	0.375	0.191	1.959
White partner	2128 / 1801	0.427	0.199	2.100	2513 / 2248	0.334	0.224	2.263
<i>Black Respondents</i>								
Partner of any race	706 / 619	0.432	0.209	1.907	1059 / 909	0.269	0.303	1.993
White partner	84 / 68	0.531	0.131	2.078	32 / 27	0.499 *	0.104 *	2.212
Different-race minority partner	66 / 62	0.471	0.126	1.874	53 / 44	0.386	0.228	1.254
Black partner	556 / 489	0.413	0.231	1.887	974 / 838	0.257	0.312	2.018
<i>Hispanic Respondents</i>								
Partner of any race	670 / 584	0.371	0.217	2.382	750 / 696	0.308	0.244	2.554
White partner	194 / 171	0.367	0.211	2.604	130 / 115	0.344	0.216	1.883
Different-race minority partner	52 / 39	0.166	0.297	2.446	654 / 607	0.294	0.256	2.728
Hispanic partner	424 / 374	0.390	0.214	2.259	524 / 492	0.278	0.269	2.965
<i>Asian Respondents</i>								
Partner of any race	277 / 253	0.321	0.227	3.017	314 / 283	0.221	0.231	3.188
White partner	61 / 51	0.379	0.336	2.607	75 / 64	0.246	0.200	2.322
Different-race minority partner	25 / 22	0.625 *	0.006 *	1.507	96 / 89	0.387	0.173	1.502
Asian partner	191 / 180	0.273	0.211	3.293	184 / 170	0.195	0.261	3.403

Notes: Estimates are weighted. Significance tests indicate whether value is significantly different from same-race partner based on t-tests that take into account design effects. Months of romance before sex are computed for respondents who report having a romantic relationship.

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**Table 3. Outcomes for Relationship Transitions, by Race of Respondent and Partner:
Respondents from NSFG and Add Health**

<i>Outcome in competing risk models</i>	NSFG Men		Add Health Men		Add Health Women	
	White	Minority	White	Minority	White	Minority
Ongoing sexual union at interview	.398	.366	.297	.300	.312	.323
Dissolution of sexual union	.252	.259	.297	.286	.174 *	.196 *
Cohabitation	.250 *	.282	.352	.363	.432 *	.402
Marriage	.099	.093	.054	.051	.082	.079
N of cases	527	416	2230	1560	2747	1999

Notes: Estimates are weighted. Significance tests indicate whether value is significantly different from same racial status group of Add Health men (i.e., white men or minority men) based on t-tests that take into account design effects.

* $p < .05$ (two-tailed tests)

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Table 4. Hazard Ratios (Exponentiated Estimates) from Competing Risks Proportional Hazards Models of Timing from Sex to Co-residence and Dissolution: Respondents from NSFG and Add Health

<i>Sample</i>	Cohabitation			Marriage		Dissolution of Sexual Union			
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 1	Model 2	Model 3	
<i>White Men from the NSFG</i>									
Minority partner (vs white)	1.587 *	1.505 #	---	---	---	0.833	0.829	---	
N of cases	527	527				527	527		
<i>White Men from Add Health</i>									
Minority partner (vs white)	1.363 *	1.394 *	1.771 *	0.350 *	0.478 #	1.007	1.019	0.978	
N of cases	2,230	2,230	6,548	2,230	2,230	2,230	2,230	6,548	
<i>Minority Men from the NSFG</i>									
White partner (vs same race)	1.570 *	1.480	---	---	---	0.610	0.761	---	
Different-race minority partner	1.443	1.253	---	---	---	1.332	1.438	---	
N of cases	416	416				416	416		
<i>Minority Men from Add Health</i>									
White partner (vs same race)	0.929	0.834	1.137	0.619	0.473 #	1.123	1.267	1.132	
Different-race minority partner	0.831	0.787	1.462	0.490	0.625	1.480	1.500 #	1.466 **	
N of cases	1,560	1,560	4,215	1,560	1,560	1,560	1,560	4,215	
<i>White Women from Add Health</i>									
Minority partner (vs white)	0.931	0.858	1.009	0.316 **	0.376 **	1.152	1.166	1.127 #	
N of cases	2,747	2,747	8,300	2,747	2,747	2,747	2,747	8,300	
<i>Minority Women from Add Health</i>									
White partner (vs same race)	1.461 **	1.159	1.926 *	0.887	0.501	1.355	1.033	1.169	
Different-race minority partner	1.324 #	1.195	1.642	0.337 #	0.284 *	1.084	1.186	1.138	
N of cases	2,747	2,747	5,464	1,999	1,999	1,999	1,999	5,464	

Notes: Model 1 does not include control variables. Model 2 includes control variables for age when relationship began, race (for minority models) maternal education, nativity, family structure, church attendance, age at first sexual intercourse, logged number of previous sex partners, and previous cohabitation. Model 3 is a fixed-effects proportional hazards model that does not include controls.

** p < .01; * p < .05; # p < .10 (two-tailed tests)