Assessing the Deinstitutionalization of Marriage Thesis: An Experimental Test*

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Abstract

This article seeks to experimentally evaluate the thesis that marriage is deinstitutionalized in the United States. To do so, we map the character of the norm about whether different-sex couples ought to marry, and identify the extent to which the norm is strong or weak along four dimensions: *polarity*, whether the norm is prescriptive, proscriptive, bipolar (both prescriptive and proscriptive), or nonexistent; *conditionality*, whether the norm holds under all circumstances; *intensity*, the degree to which individuals subscribe to the norm; and *consensus*, the extent to which individuals share the norm. Results of a factorial survey experiment administered to a disproportionate stratified random sample of U.S. adults ($N = 1,823$) indicate that the norm to marry is weak: it is largely bipolar, conditional, and of a low-to-moderate intensity with disagreement over the norm as well as the circumstances demarcating the norm. While the norm to marry is different for males and females and Black and White respondents, the amount of disagreement (or lack of consensus) within groups is comparable between groups. We find no significant differences across socioeconomic status (education, income, and occupation). Overall, our findings support key claims of the deinstitutionalization of marriage thesis.

Introduction

Where does the institution of marriage stand in the mind of the American public? There is growing consensus among family scholars that the institution of marriage is experiencing profound changes (Cherlin 2004, 2020; Coontz 2005; Knapp and Wurm 2019; Lundberg and Pollak 2007; Lundberg et al. 2016; Powell et al. 2010; Rosenfeld 2007; Thornton et al. 2007). In a programmatic statement, Andrew Cherlin (2004) refers to the sum of these changes as the *deinstitutionalization of marriage*, or “the weakening of the social norms that define people’s behavior in a social institution such as marriage (p. 848).” Cherlin’s (2004, 2020) deinstitutionalization of marriage thesis maintains that the institution of marriage is undergoing uneven declines across social groups. While marriage still plays a central role for White Americans and the college-educated, Cherlin (2020) contends that alternatives to marriage have become more acceptable and are more prevalent among Black Americans and the non-college-educated, suggesting that the norm about whether to marry has weakened.¹

At the heart of the deinstitutionalization of marriage thesis are empirical questions about the “strength” of social norms governing marriage. Common definitions of a social norm conceptualize it as a rule, with some degree of consensus, that prescribes or proscribes a particular action (Coleman 1990; Hechter and Opp 2000; Horne 2009). Given this definition, what constitutes a *strong* or *weak* norm? For Cherlin, a norm is strong when it is “widely agreed upon (2020: 64)”, and a norm is weak when there is widespread disagreement. Yet the literature on social norms suggests that a norm can be strong or weak along four dimensions (Horne et al.

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¹ The Second Demographic Transition characterizes the institution of marriage to be undergoing a similar decline or “retreat” in Western societies (Lesthaeghe 2014). The United States, however, is exceptional because of the race and class differences that exist in the institution of marriage (Ruggles 1994). Also note that the institution of marriage includes norms about *how to be married*, which have changed less in the United States than the norm about *whether to marry* (Cherlin 2020).

2018; Jackson 1966; Jasso and Opp 1997; Rauhut and Winter 2010; Rossi and Berk 1985): *polarity*, whether a norm for a given individual is prescriptive (permit and endorse behavior), proscriptive (prohibit and oppose behavior), bipolar (both prescriptive and proscriptive), or nonexistent (an individual does not subscribe to the norm); *conditionality*, whether a norm for a given individual holds under all or some circumstances; *intensity*, the degree to which an individual subscribes to a norm; and *consensus*, the extent to which members of a population share a norm. Investigating each of these dimensions—particularly whether there is consensus across racial and socioeconomic lines—is necessary to assess the deinstitutionalization of marriages thesis.

The issue is that prior research examining norms about marriage has yet to measure all four dimensions in a single study, which makes it difficult to evaluate the strength of social norms surrounding the institution of marriage in general and the deinstitutionalization of marriage thesis in particular. In the current study, we address this gap by designing a factorial survey experiment (FSE) of different-sex marriage (Auspurg and Hinz 2015): a method that leading scholars of social norms argue is more systematic than and better suited to measuring social norms than conventional survey items or ethnographic methods (Horne et al. 2013; Horne et al. 2018; Jasso and Opp 1997; Jasso 2006). To test whether the norm to marry differs across social groups, we administer our FSE to a random sample of U.S. adults disproportionality stratified by race (Black, White), gender (male, female), and education (high school diploma, some college, Bachelor's degree or higher).

With this design, we provide a comprehensive evaluation of Black and White Americans' approval of different-sex marriage, how conditional that approval is on the characteristics of those getting married, and how much consensus there is within and between demographic

groups. Most importantly, the proposed FSE eliminates problems of internal validity inherent in observational studies via random assignment. Marriage conditions and preferences that are correlated in real life, such as education and earnings, are orthogonal by design in our experiment. We can, in other words, untangle effects of circumstances that commonly co-occur, permitting us to test and directly compare the independent effects of conditions that demarcate the norm to marry. Moreover, because we oversample specific demographic groups (e.g., Black Americans, college-educated), we can better test whether theorized differences exist between subpopulations, particularly Black Americans and White Americans and the non-college-educated and college-educated (Cherlin 2004, 2020). We can also draw population-based inferences for those randomly sampled subpopulations. In short, this paper makes two contributions. First, it contributes to family scholarship by directly measuring the four dimensions of the norm to marry; by investigating the extent to which the norm to marry varies across demographic groups; *and* by applying these methods and forms of investigation to a disproportionate stratified random sample of U.S. adults. Second, it extends the literature on social norms to a new area of study, illustrating how the conceptualization and measurement of social norms can provide novel insights in other fields like marriage and the family.

Our findings show that the majority of Black and White respondents in the United States embrace a different-sex marriage norm. Yet the norm to marry is weak: it is largely bipolar, conditional, and of a low-to-moderate intensity, with disagreement over the norm as well as the circumstances demarcating the norm. Our results buttress most claims of Cherlin's (2004, 2020) deinstitutionalization of marriage thesis: the norm to marry is weak and divided along racial and gender lines, though not socioeconomic status (SES).

Social Norms and the Norm to Marry: Theoretical and Empirical Background

Four Aspects of a Social Norm

A social norm is a rule about a particular behavior, with some degree of consensus, that is socially enforced (Coleman 1990; Hechter and Opp 2000; Horne 2009). Rules—the backbone of social norms—are statements “claiming that something ought or ought not to be the case (Opp 2013: 384)”. This implies that rules prescribe (permit) or proscribe (prohibit) particular actions (behaviors to which a social norm applies), and that individuals who subscribe to a norm tend to punish those who violate the rules, while rewarding those who follow the rules (Coleman 1990; Hechter and Opp 2000; Horne 2009). As Cristina Bicchieri (2006) writes: “Social norms prescribe or proscribe behavior; they entail obligations and are supported by normative expectations. Not only do we expect others to conform to a social norm; we are also aware that we are expected to conform, and *both* these expectations are necessary reasons to comply with the norm (p. 42)”.

These definitions highlight four key aspects of a social norm (Horne et al. 2018; Jackson 1966; Jasso and Opp 1997; Rauhut and Winter 2010; Rossi and Berk 1985). First, norms might vary in their *polarity*: they can be prescriptive, proscriptive, bipolar, and/or nonexistent. Second, norms might vary in their *conditionality*: they can hold under all (unconditional) or some (conditional) circumstances. Third, norms might vary in their *intensity*: individuals can differ in the degree to which they subscribe to a norm (e.g., low, moderate, or high). Fourth, norms might vary in their level of *consensus*: they can be shared by all or only a few members of society.

Polarity. The first step in establishing how strong or weak a social norm is in a population is to examine the norm’s character for *each individual*. Mapping the character of a norm begins by identifying its polarity. Polarity means that for any given individual, a person can uniformly oppose a focal action or behavior regardless of the circumstances (proscriptive),

uniformly endorse a behavior regardless of the circumstances (prescriptive), oppose *and* endorse a behavior depending on the circumstances (bipolar), or neither oppose nor endorse a behavior since there may not be a norm or rule guiding the focal action (nonexistent).

Conditionality. One should also evaluate whether the norm under study is unconditional—“under *no* circumstance should an individual perform *X*” or “under *all* circumstances should an individual do *X*”—and, if not, in which conditions does a social norm apply. Most norms are replete with conditions. Even a seemingly universal norm such as “thou shalt not kill” can have limits placed on the conditions in which it does or does not hold. Killing in some cultures is appropriate when in self-defense or when the victim is an outgroup member (e.g., White Americans lynching Black Americans in the U.S. South during Jim Crow).

Conditionality, then, is the degree to which a social norm—for any given individual—holds under all circumstances, where circumstances refer to characteristics of the situation and/or the situations’ interactants. While polarity implies direction, conditionality identifies the degree to which an individual varies in their evaluation of a norm in light of shifting circumstances. For instance, individual A might uniformly prescribe marriage, but nonetheless vary the magnitude of their prescriptions depending on the circumstances. Individual B, in contrast, might uniformly prescribe marriage to the same degree regardless of the circumstances. In these examples, individual A subscribes to a conditional norm, while individual B subscribes to an unconditional norm. For any individual, an unconditional norm may be prescriptive or proscriptive, but never bipolar; a conditional norm, in contrast, may be prescriptive, proscriptive, or bipolar. Thus, a bipolar norm is always a conditional norm by definition.

Intensity. Whereas polarity identifies the direction of a social norm, intensity is the degree to which an individual subscribes to a norm. For instance, individuals A and B might both

uniformly prescribe marriage, but the degree of this prescription could be “not very strong at all” for individual A and “very strong” for individual B. While individual A and individual B both feel obligated to conform to the norm to marry, the magnitude of each individual’s personal obligations and expectations varies.

Consensus. Polarity, conditionality, and intensity are first established at the individual level, and then proportions and central tendencies can be used to map their distributions in the population. Consensus, by contrast, refers to the degree to which individuals in the population share a norm: degree of unanimity in the knowledge of a rule, common preferences to conform to a rule, and shared expectations of others’ conformity to a rule. It can, in other words, “be described as the *homogeneity of acceptance* [emphasis added] concerning the validity of one particular norm within a population (Rauhut and Winter 2010: 1183).” Consensus is demonstrated by identifying the extent to which a norm is shared within *and* between subpopulations, and ultimately rests on the amount of between-individual variation in a norm (Jasso 2006).

Consensus is crucial for understanding the shared character of a norm in a population. Some norms vary between subpopulations but not within, while other norms vary to a great extent within *and* between subpopulations. Gaining knowledge of how a norm is shared in a population specifies how strong or weak a norm might be. For instance, if half of the individuals in a population uniformly prescribe marriage while the other half uniformly proscribe marriage, this would suggest disagreement (or a lack of consensus) in the norm to marry. Given disagreement in the population, the next step is to identify which traits or characteristics are common among subpopulations (e.g., upper-middle classes might be more likely to prescribe marriage than those in poverty).

Theoretically, then, a strong norm is one with consensus about a rule that approves (or disapproves) of a particular behavior, where the strength of approval (or disapproval) is intense and the circumstances under which the rule applies are unconditional. One ideal-typical strong norm is a norm against incest: individuals widely believe, to a great degree, that incest is strictly prohibited regardless of the conditions. A weak norm, by contrast, is one with widespread disagreement in which (a) some people approve of a particular behavior, others disapprove, and still others might believe that the focal action is not guided by rules, (b) the strength of approval or disapproval is mild, and/or (c) the circumstances under which the rule applies are varied. The norm about whether and what to give on Valentine's Day is a contemporary example of a weak norm: some people feel obligated to give a gift, other people refuse to participate in the tradition out of principle, and most people do not care either way.

Despite their importance, these four dimensions are rarely used to shed light on topics of general interest to sociologists (see Horne et al. 2018; Jasso and Opp 1997; Rauhut and Winter 2010 for exceptions). The primary reason for this is methodological. Although sociologists have toolkits for inferring the representativeness of various attitudes, beliefs, and intentions—such as general social surveys—widespread measurement of the four dimensions of social norms is lacking. To properly measure polarity, conditionality, intensity, and consensus, respondents must assess a systematic set of counterfactual conditions, which is time consuming and costly for general population surveys. However, because norms undergird most social institutions, questions of broad sociological interest—such as the deinstitutionalization of marriage thesis (Cherlin 2004, 2020)—would benefit from theoretical insights and methodological tools developed by scholars of social norms. Our paper offers a template for incorporating the four

dimensions of social norms into sociological research, and extends the empirical scope of the multidimensional approach to measuring norms.

The Norm to Marry in the United States

In the United States, social norms have long played a part in individual decisions to marry (Edin and Kefalas 2005; Powell et al. 2010; Rosenfeld 2007). Measuring the norm about whether different-sex couples ought to marry is thus important for the resolution of debates that exist over the polarity, intensity, conditionality, and consensus of the norm. Below, we briefly review these major debates and findings.²

Polarity and Intensity. Although we cannot document change over time, we contextualize our work by noting that throughout much of the 20th century prior to the 1960s, only about 5 percent of people in the United States ever cohabited and couples would typically marry after roughly six months of dating (Coontz 2005; Cott 2002). This suggests that social norms at the time were prescriptive of marriage following a narrow dating period. Individuals today, however, are less likely to think that couples should marry than in the past, and have a greater tolerance for behaviors that were once forbidden socially (Powell et al. 2010). Americans' attitudes toward marriage have also grown more negative and they view marriage as more restrictive (Gubernskaya 2010; Thornton and Young-DeMarco 2001; Treas et al. 2014). Despite shifts in attitudes and behavior, the literature suggests that norms still govern marriage in the

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² While there are several axes along which norms about marriage differ, the present paper focuses on Black-White differences in norms about different-sex marriage rather than same-sex marriage (as well as differences by gender and SES). We focus on different-sex marriage because the deinstitutionalization of marriage thesis is largely concerned with changes to different-sex marriage in the United States (Cherlin 2004), and our interest is in testing these classic arguments about the normative state of different-sex marriage. We also focus on Black-White differences because these two subpopulations have been described as having the most divergent patterns of marriage. As Cherlin (2020: 70) notes, Hispanic Americans occupy a middle position between Black and White Americans when it comes to marriage, divorce, and non-marital childbearing. We further discuss the implications of our research design, and potential studies of other subpopulations, in the discussion and conclusion.

contemporary United States (Cherlin 2020; Lauer and Yodanis 2010; Knapp and Wurm 2019), though norms may be less prescriptive, less intense, *and* more conditional than they were in the past. In other words, the normative pressure to marry may still exist, but be less absolute, applying to fewer situations and couples than before.

What we are able to offer empirically is a thorough assessment of whether individuals in the contemporary United States—particularly Black Americans and White Americans, and the non-college-educated and college-educated—think that different-sex couples should or should not marry. Unlike previous work, we can answer the following questions: Is the contemporary norm to marry in the United States prescriptive, proscriptive, bipolar, nonexistent, or some combination of the four? Among those who subscribe to a norm (be it prescriptive, proscriptive, or bipolar), what is the magnitude or intensity of their devotion? Finally, how important are conditions for understanding these norms?

Conditionality: Economic bar to marriage. One important circumstance serving as a boundary of different-sex marriage, revealed by both quantitative and qualitative research, is that individuals need to meet a set of economic goals in order to marry (Edin 2000; Edin and Kefalas 2005; Gassman-Pines et al. 2017; Gibson-Davis et al. 2018; Ishizuka 2018; Rackin and Gibson-Davis 2017; Schneider 2011; Watson and McLanahan 2011). While some research finds that men’s and women’s earnings and financial contributions are both important for entry to marriage (Ishizuka 2018; Kuo and Raley 2016; Gibson-Davis et al. 2018), earlier research suggests that men’s financial position and economic prospects are more important than women’s (Gibson-Davis 2009; Smock et al. 2005). Beyond earnings and employment prospects, assets have also been tied to marriage (Schneider 2011). The idea here is that couples should have the necessary capital or wealth in order to afford various “capstone” events such as a wedding or

homeownership (Edin and Kefalas 2005; Smock et al. 2005; Gibson-Davis 2018). An economic bar to marriage is one potential explanation for why low-income individuals are less likely to marry than other socioeconomic groups (Watson and McLanahan 2011). Our research can help clarify how important features of the economic bar are relative to other relationship features, and whether men's and women's financial achievements are similarly important for prescribing different-sex marriage.

Conditionality: Pregnancy status. A strong norm forbidding non-marital childbearing existed in the United States until the last third of the 20th century. This norm is still observed in the United States, albeit in a weakened state with variation in the strength of the norm across subpopulations (Barber et al. 2015; Cherlin et al. 2008; Daughterty and Copen 2016). That being said, there has been relative stability in the prevalence of “shotgun marriages” over time (Gibson-Davis et al. 2016), and the majority of adults in the United States agree that people who want children should marry (Thornton and Young-Demarco 2001). Although research on low-income parents suggests that this norm has declined, ethnographic research shows that low-income individuals *without* children view marriage and childbearing as strongly coupled (Rackin and Gibson-Davis 2017). It is thus an open question about how strong prescriptions to marry are when couples face a pregnancy. Our research can help answer this question.

Conditionality: Relationship quality. What constitutes relationship quality, and the level required for entry into marriage, has likely shifted. Marriage in the United States has moved from companionate marriages (in which quality meant emotional satisfaction from playing marital roles well) to individualized marriages (in which quality meant self-fulfillment, openness, and communication) (Cherlin 2004, 2010; Lesthaeghe 2014). These shifts suggest that whether people should marry depends on the quality of their relationship. Brown (2004) found

that relationship quality did not increase the likelihood of marriage among cohabiting couples, but other research finds that distrust and conflict reduces the likelihood of marriage (Waller and McLanahan 2005). One goal of our study is to identify the extent to which relationship quality matters as a circumstance demarcating who should or should not marry.

Consensus: Race, gender, and socioeconomic status. A central goal for family scholars has been to understand the growing divergence in the institution of marriage across subpopulations (Pagnini and Morgan 1996; Wilson 1987, 1996, 2009). White Americans and the college-educated are more likely to marry and hold favorable attitudes toward marriage than Black Americans and the non-college-educated, respectively (Gubernskaya 2010; Kuo and Raley 2016; Lundberg and Pollak 2007; Raley et al. 2015; Sassler and Schoen 1999; South 1993; Torr 2011).³ Women are also more likely than men to prefer marriage, and are more certain about their desire to get married (Thornton and Young-DeMarco 2001), although other research shows that women report stronger negative attitudes toward marriage than men (Autor and Wasserman 2013; Gubernskaya 2010; Sassler and Schoen 1999).

Finally, a sizable body of research suggests that Black Americans and White Americans as well as the non-college-educated and college-educated disagree over the circumstances demarcating marriage, namely the economic bar, pregnancy status, and relationship quality (Cherlin et al. 2008; Edin 2000; Edin and Kefalas 2005; Gibson-Davis et al. 2005; Rackin and Gibson-Davis 2017; Smock et al. 2005; Waller 2002; Wilcox and Wolfinger 2016). In short, divergences along racial, gender, and socioeconomic lines have created disagreement over the institution of marriage in the United States. Our research design allows us to assess whether there

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³ It is important to note that Black-White differences in attitudes toward marriage vary from attitude-to-attitude (e.g., see Bulcroft and Bulcroft 1993; Sweeney 2002).

is, in fact, a lack of consensus in the norm to marry, as well as the circumstances governing the norm.

Research Questions

The goal of this study is to evaluate the strength of the norm about whether different-sex couples ought to marry in the United States. We do so by mapping the character of the norm and by establishing whether divergent subsystems of the norm exist across race (Black, White), gender (male, female), and SES (education, income, occupation).

We follow Jasso and Opp's (1997) method of mapping the character of a social norm; that is, we investigate the polarity, conditionality, intensity, and consensus of the norm to marry. Given the results, we then investigate the circumstances in which the norm to marry holds and whether these circumstances vary by subgroups in the U.S. population. This includes measuring the existence of the following conditions: different-sex couples ought (or ought not) to marry (a) unless they have achieved a certain economic status, (b) when they are expecting a child, and (c) when the quality of their relationship is good. Given the goals specified above, we use the following questions to orient our study:

Question 1. What is the character (polarity, conditionality, intensity, consensus) of the norm to marry among Black and White Americans in the United States, and what does it imply for the deinstitutionalization of marriage thesis?

Question 2. What are the circumstances demarcating, or serving as boundaries of, the norm to marry among Black and White Americans in the United States?

Question 3. Are individual tendencies to proscribe or prescribe marriage universal or specific to subpopulations based on race (Black, White), gender (male, female), and SES (education, income, occupation)?

Question 4. Are circumstances demarcating the norm to marry universal or specific to subpopulations based on race (Black, White), gender (male, female), and SES (education, income, occupation)?

Data and Methods

To measure the character of the norm to marry, we employed a FSE design (Auspurg and Hinz 2015; Jasso 2006). The typical FSE presents respondents with hypothetical scenarios (*vignettes*) that reflect real-life situations and stimuli. Within each scenario or vignette, experimenters manipulate attributes of the situation (*dimensions*) by randomly assigning attribute values (*levels*) to elicit judgments, decisions, or intentions with one or more dependent variables (*evaluation task*). In this study, we presented a disproportionately stratified random sample of U.S. adults with ten vignettes describing a fictive couple, Mike and Jessica.⁴ We used a number of norm-relevant dimensions, such as Mike's and Jessica's individual earnings, to characterize their circumstances. Each dimension consisted of two or more manipulated levels (e.g., \$20,000 versus \$50,000 in earnings) that we randomly assigned to respondents. We then asked respondents to evaluate and judge whether the protagonists in each vignette ought to or ought not to marry.

The Respondent Sample

The sample consisted of respondents drawn from a nationally representative web panel collected by GfK (formerly Knowledge Networks). Participants for the study came from a random subset of the GfK web panel, which was recruited using a combination of list-assisted random-digit dial and address-based sampling methods. The study was fielded in January 2017 and targeted English speaking, non-institutionalized adults age 18 and older residing in the

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⁴ Although overrepresented among Whites, we selected the names “Mike” (78.3% White, 10.6% Black, 6.2% Hispanic origin, 2.8% Asian or Pacific Islander, and 2.1% Other) and “Jessica” (71.1% White, 10.5% Black, 14.0% Hispanic origin, 2.5% Asian or Pacific Islander, and 2% Other) since they are common names that exhibit representation across the major ethnoracial groups in the United States (mynamestats.com). Tzioumis (2018), by contrast, reports greater overrepresentation among Whites (“Mike” is 81.5% White, “Jessica” is 88.9% White).

United States. GfK contacted 3,181 web panel participants. 1,823 participants completed the study, yielding a 57 percent completion rate.

One goal of our study was to investigate whether the norm to marry is universal or specific to subpopulations based on race, gender, and SES. We thus designed our sample to create twelve different demographic cells cross-classified by race, gender, and SES, with roughly 150 observations per cell. We restricted the sample to non-Hispanic Whites and non-Hispanic Blacks (henceforth White and Black, respectively), with an oversample of Blacks. We measured and restricted gender to males and females. Highest educational attainment was categorized as high school diploma, some college, and Bachelor's degree or higher. The "high school diploma" category consisted of respondents who received a high school diploma, GED, or high school equivalence certification. The "some college" category consisted of respondents who received an Associate's degree or completed some college courses but did not receive a degree. The "Bachelor's degree or higher" category consisted of individuals who had graduated with a Bachelor's, Master's, Professional, or Doctorate degree. Our sample excluded respondents without a high school diploma because GfK was unable to guarantee a sufficient number of Black males or Black females with only some high school.⁵ Given our stratified sample design and budget constraints, we chose to maximize sample size—and consequently statistical power—for those cells that GfK was able to guarantee a sufficient number of observations.

In all, our survey included 911 male, 912 female, 913 Black, 910 White, 609 HS diploma, 608 some college, and 606 Bachelor's degree or higher respondents. The result was twelve different demographic cells (e.g., Black male with a HS diploma) with roughly 150

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⁵ The U.S. Current Population Survey reports that approximately 10 percent of the population has less than a high school diploma.

observations per cell. Other key demographic characteristics—such as age, census region, and metropolitan area—were representative of the U.S. population.

Demographic Characteristics

Socioeconomic status. We utilized two additional indicators to measure SES. First, we used the household income of respondents. To measure household income, we took the midpoints of closed income categories provided by GfK. We then adjusted for household size (divided midpoint values by total household size) and natural log the adjusted values. This produced a logged per capita household income adjusted for household size.

Second, we used the occupation of respondents, and employed a modified version of the EGP class schema to measure occupation (Erikson and Goldthorpe 1992): class one (higher- and lower-grade professionals, administrators, managers, and officials), class two (routine non-manual and service employees, higher- and lower-grade), class three (high-grade technicians and repairers, public safety workers, performers, and supervisors of manual workers), class four (skilled manual workers, lower-grade technicians, installers, and repairers), class five (semi-skilled and unskilled manual workers, not in agriculture), class six (agricultural), class seven (military), other occupation (occupation unknown), not working (layoff, looking for work, and other not working), retired, and disabled.

Control variables. To account for possible confounding at the individual-level, we controlled for various attitudes and demographic characteristics: age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments. We omitted estimates of the control variables from all tables to conserve space since our focus is on testing whether the norm to marry varies by race, gender, and SES. But given the centrality of

some control variables in debates about marriage (e.g., religion), we included estimates of all control variables in the Supplemental Materials online.

Summary statistics and descriptions of all individual-level variables used in the present study are in the Appendix (Table A1).

The Vignette Samples

Vignette dimensions and levels. In an FSE, “the choice of vignette characteristics is based on the conjecture that the characteristics may be relevant in the eyes of some respondents” and that the vignette characteristics capture “potentially normatively relevant information” (Jasso and Opp 1997: 951). Thus, the first step in constructing our FSE was to select circumstances relevant to setting the norm’s boundaries. Our decision was based on three separate sources of information. First, we followed recent prescriptions offered by FSE methodologists who suggest that the number of dimensions to include in an FSE should be greater than four but less than ten (Auspurg and Hinz 2015). This nine-to-five range undermines order effects (i.e., bias that results from the order in which a dimension is presented in a vignette), reduces respondent boredom and fatigue effects, and facilitates unbiased evaluation of vignettes for respondents of higher age (> 60 years old), lower educational background, and little familiarity with the topic under evaluation. Second, we were also informed by a pretest administered to undergraduate students at a large public university ($N = 75$), a focus group of undergraduate honors students ($N = 15$), and a pilot study of Amazon.com Mechanical Turk workers ($N = 530$).⁶ Third, and most

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⁶ The pilot studies were particularly informative. A prior version of our design manipulated the race of Mike and Jessica. In open-ended responses inquiring about our study, respondents repeatedly questioned the necessity of including race (the race dimension was also statistically non-significant). To avoid demand and reverse demand effects, we excluded the race dimension from our experiment. Despite this change, findings were largely consistent across the Mechanical Turk and GfK samples.

importantly, we were guided by the previously reviewed literature on the norm to marry in the United States.

Given the literature and our extensive pretesting, seven vignette dimensions were manipulated (see Table 1), consisting of pecuniary and non-pecuniary characteristics of Mike, Jessica, and their relationship. To avoid *number-of-level effects* (see Auspurg and Hinz 2015, p. 20), we restricted the number of levels manipulated per dimension to no more than three. And following convention (Wallander 2009), our manipulated levels included high and low values or the presence and absence of vignette characteristics.

Research consistently finds that an economic bar must be met before marriage is judged desirable (Edin 2000; Edin and Kefalas 2005; Gassman-Pines et al. 2017; Gibson-Davis et al. 2018; Ishizuka 2018; Rackin and Gibson-Davis 2017; Watson and McLanahan 2011). The most basic characteristics behind the economic bar to marriage are the *earnings*, *employment*, and *education* of male and female partners. For *earnings and employment*, we distinguished between unemployment (“she/he has been unemployed for 2 years”) and two earnings levels (“she/he has a full-time job and earns about \$20,000/\$50,000 a year”) for both Mike and Jessica.⁷ The control level (i.e., unemployment) described situations of relatively low economic standing, while the middle (i.e., “earns about \$20,000”) and upper levels (i.e., “earns about \$50,000”) represented roughly the 1st quartile and median income, respectively, for male householders (no wife present) in the United States (DeNavas-Walt et al. 2012). Building from the same literature, the *education* of Mike and Jessica included three levels roughly corresponding to SES in the United States: “Mike/Jessica...does not have a high school diploma/...has a high school diploma/...has a 4-year college degree”. While higher levels of education can be achieved, we manipulated these

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⁷ Our operationalization of “unemployed” is intentionally ambiguous with respect to looking for work. We made this design choice to avoid conflating motivation for employment with the state of not being employed.

three levels as they constituted the bulk of education levels observed in the U.S. population.

Taken together, *earnings and employment* consisted of two dimensions (one for Mike and one for Jessica), as did *education* (one for Mike and one for Jessica).

The final pecuniary characteristic, *assets*, was used to capture the money needed to be in place for individuals to marry (Edin and Kefalas 2005; Smock et al. 2005; Schneider 2011). For our *assets* dimension, one level was mentioned in the vignettes (“Mike and Jessica recently inherited \$5,000 each from a mutual, elderly friend”), while the other level was not (i.e., a blank level). We settled on this operationalization of assets to reduce measurement confounding.

Assets that are accrued exogenously (i.e., inheritance from a friend) are not correlated with other features of Mike or Jessica such as motivations to save money or the accrual of debt.

There are many non-pecuniary characteristics that inform decisions to marry, including control over household decisions, fear of domestic violence, and drug use (Edin 2000; Edin and Kefalas 2005; Smock et al. 2005). For the current study, we focus on two classic characteristics: relationship quality and pregnancy status. *Relationship quality* is often viewed as a multi-dimensional construct that consists of objective and subjective characteristics, such as levels of companionship, communication, affection, trust, and conflict, as well as satisfaction and happiness with the relationship (Wilcox and Nock 2006). Investigating several aspects of relationship quality would require too many vignette dimensions. Instead, we focus on communication and conflict. Therefore, two levels that emphasize (a lack of) communication and conflict resolution operationalized *relationship quality* (see Table 1).

To see whether unmarried couples are expected to marry given a pregnancy, we distinguished between not pregnant (“Mike and Jessica are not thinking of having a child at this time”) and pregnant (“Mike and Jessica were not thinking of having a child at this time, but they

just found out that Jessica is pregnant”). The goal of our operationalization was to provide the respondent with Mike and Jessica’s preferences for children (not now, but possibly later) as well as their pregnancy status (not pregnant versus pregnant).

Population of vignettes. With the vignette dimensions and levels outlined in Table 1, we constructed the factorial object universe or vignette population (i.e., all possible combinations of dimensions and levels). The number of possible vignettes (V) is $2^3 \times 3^4 = 648$. Since all possible vignettes were plausible and logical, the resulting factorial object universe did not result in impossible combinations of dimensions and levels. We, as a result, retained the full population of 648 vignettes.

Drawing vignette samples. The final two design-based choices involved the number of vignettes to present to respondents and the sampling procedure used to assign vignette dimensions and levels to respondents.

With respect to the number of vignettes, the methodological literature suggests that respondents should evaluate no more than ten vignettes to avoid cognitive overload, fatigue, and learning effects (Auspurg and Hinz 2015). While evaluating more than one vignette increases statistical efficiency and power (Jasso 2006), the assumption of temporal stability and causal transience must be maintained. Empirical support of this assumption, as well as other assumptions central to causal inference, are in the Supplemental Materials Online. In short, we follow recent methodological suggestions and restrict the number of vignettes evaluated per respondent to ten.

To randomly assign vignette dimensions and levels, we used a randomized block design (RBD) with replacement. Given the respondent sample size ($N = 1,823$), the size of the vignette object universe ($V = 648$), and the total number of vignettes evaluated per respondent ($n = 10$),

we were able to achieve a full-factorial between-subjects design. The RBD yielded an average of 28 evaluations for each unique vignette (min = 14, max = 47). No respondent evaluated the same vignette twice. In terms of blocks, our block randomization procedure generated roughly equal distributions of *Mike's earnings and employment*, *Jessica's earnings and employment*, and *pregnancy status* within race (Black, White), gender (male, female), and education (high school diploma, some college, Bachelor's degree or higher). We used an RBD to increase the statistical efficiency of higher-order interaction terms between characteristics of respondents and manipulated characteristics of Mike and Jessica.

For each evaluated vignette (1,...,10), the number of blocked cells to fill was 216 ($3 \times 3 \times 2 \times 2 \times 2 \times 3$). Our RBD was effective at producing balance between the three key vignette dimensions within the demographic characteristics of race, gender, and education. Illustrating the distribution of all cell combinations is difficult. Tables S1 through S12 in the Supplemental Material Online, however, summarize the number of vignettes in each vignette condition evaluated by the race, gender, and SES (education) of respondents pooled across the ten vignettes. A simple random sample with replacement (SRS) was used to randomly assign the remaining vignette dimensions and levels to respondents (i.e., *Mike's education*, *Jessica's education*, *assets*, and *relationship quality*). Like the RBD, the SRS was effective at producing balance between the remaining vignette dimensions.

The Evaluation Task

Ten vignettes were presented successively to each respondent at the beginning of a web-based survey. Prior to assessing the vignettes, respondents were shown a coversheet providing details about Mike and Jessica:

“Mike and Jessica have been together for a year and a half. Each is 33 years old. Neither one has been married. Neither one has a child. And neither of them has a criminal record or an addiction to drugs or alcohol.”

This information was subsequently provided at the top of each vignette to remind the respondents of these characteristics.⁸ Respondents were then told that they would be shown ten scenarios, and that each scenario would have different details about Mike and Jessica.

A vignette is presented below as an illustration (bolded portions were manipulated based on the level randomly assigned to respondents):

“Mike does not have a high school diploma. He has been unemployed for 2 years. Jessica has a 4-year college degree. She has a full-time job and earns about \$50,000 a year. Mike and Jessica recently inherited \$5,000 each from a mutual, elderly friend.

Mike and Jessica are attracted to one another and treat each other well. **But when they have disagreements with each other they argue and feel hurt and misunderstood afterward.**

Mike and Jessica **are not thinking of having a child at this time.**”

After respondents read each scenario, they were instructed to think about their personal normative beliefs: “Based on your personal values about marriage, should Mike and Jessica marry or not marry in this scenario?” Since social norms range in polarity, respondents were asked to rate each vignette with a 9-point bipolar scale. Instead of showing respondents a horizontal rating scale with all nine response values, we employed a branching technique to simplify the complex decision task. With this technique, respondents were shown an initial four-

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⁸ We chose to fix various characteristics of Michael and Jessica to features of the median person or different-sex couple who gets married in the United States (Powell et al. 2010): a couple in their thirties, without children, who have been together for one-and-a-half years, and who have not been married previously. While this strategy increases measurement equivalence and the precision of our estimates, it also decreases the generalizability and scope of our findings. There is, in other words, a “tight correspondence” (Jasso 2006: 340) between estimates of a social norm and elements of the research design. Estimates of consensus and conditionality, for instance, may vary as a function of age differences between Mike and Jessica, or whether Mike and Jessica are abusive divorcees with criminal records. While these characteristics are important to explore in future research, the goal of our study is to see whether people approve of (or support) different-sex marriage under commonplace marriage conditions. Our study, then, is a conservative test of the deinstitutionalization of marriage thesis. We thank an anonymous reviewer for bringing these issues to our attention.

option question (*Should not marry*, *Neutral*, *Should marry*, and *Don't know*). After selecting one of the endpoints, respondents were shown four levels of intensity: “Based on your personal values about marriage, how strong is your belief that Mike and Jessica [should not marry | should marry] in this scenario?”, with *Not strong at all*, *Not very strong*, *Somewhat strong*, and *Very strong* as response options ($M = 4.04$, $SD = 2.63$, $N = 16804$, $\min = 0$, $\max = 8$). The order of the initial four-option question was randomized between respondents, but remained fixed for each of the ten vignettes within respondents. This was done to undermine rating scale order effects. The 9-point scale ranges from should not marry (0 = very strong, 1 = somewhat strong, 2 = not very strong, 3 = not strong at all) to neutral (4) to should marry (5 = not strong at all, 6 = not very strong, 7 = somewhat strong, 8 = very strong).

We thus measured social norms as “personal normative beliefs” (Bicchieri 2016), or the extent to which individuals believe that others should (or ought to) follow a rule under various circumstances. We selected personal normative beliefs as our operationalization of social norms for three reasons. First, personal normative beliefs, along with empirical and normative expectations, undergird most social norms (Bicchieri 2006). Although some types of social norms can exist in the absence of personal normative beliefs, Opp (2013) contends that evaluations and judgments about what others ought to or ought not to do are core features of a social norm. As Hechter and Opp (2001) write: “the most common element in [definitions of a social norm] is ‘oughtness’ (p. 403).” Second, it is common for scholars of social norms to measure personal normative beliefs in FSEs (Diefenbach and Opp 2007; Jasso and Opp 1997), especially as bipolar scales probing degrees of “oughtness”. Third, behavioral intentions or self-reported preferences could have been used as alternative measures of social norms. These alternatives, however, require the respondent to imagine being in a relationship with either Mike

or Jessica. Such a first-person design would have (a) created situations difficult for respondents to imagine, and (b) increased various response biases like social desirability (Auspurg and Hinz 2015).

Measuring the Character of a Norm: Averages, Dispersion, and Multilevel Models

Polarity. We differentiated between nonexistent, proscriptive, prescriptive, and bipolar norms. If a respondent assigns a rating of 4 (neutral rating) to all evaluated vignettes, we interpreted this as a “nonexistent” norm for that individual. That is, the respondent did not subscribe to a proscriptive, prescriptive, or bipolar marriage norm. If a respondent’s ratings include neutral values *and* values less than 4, then we interpreted this as a proscriptive norm. Conversely, we identified a prescriptive norm when a respondent’s ratings include neutral values of 4 *and* values greater than 4. If a given respondent’s ratings include values greater than 4 for some vignettes *and* less than 4 for other vignettes, then we interpreted this as a bipolar norm.

Conditionality. We also differentiated between unconditional and conditional norms. If a respondent assigns the same non-neutral rating to all evaluated vignettes, then the respondent’s norm was interpreted as unconditional (e.g., a rating of 5 for all ten vignettes). In all other cases, the norm was treated as a conditional norm.

Intensity. We assess the intensity of an individual’s norm by calculating the numerical “distance” of each rating from the neutral value of 4 (e.g., a rating of 4 would generate a distance of 0, a rating of 3 would generate a distance of 1, a rating of 6 would generate a distance of 2, etc.). We then estimate an individual-specific mean of the distances. For instance, a respondent who subscribes to a prescriptive norm with an individual-specific mean of 3.50 would have a greater intensity (or a stronger devotion to the norm) than a respondent with an individual-specific mean of 1.25. Finally, we take an average of the individual-specific means to estimate

the intensity of the norm to marry in the population for each type of norm (e.g., unconditional proscriptive norm, conditional prescriptive norm, etc.). In this sense, measures of intensity will always be greater than 0 but less than or equal to 4, where higher values equal greater intensity.⁹

Consensus. To assess consensus, we first summarize the proportion of respondents who vary in the polarity and conditionality of the norm. If some respondents subscribe to a conditional bipolar norm while others subscribe to an unconditional proscriptive norm, then there is disagreement over the norm. But if all respondents subscribe to an unconditional prescriptive norm of similar intensity, then there is consensus regarding the norm. Heterogeneity of acceptance characterizes the first example, while homogeneity of acceptance describes the second example (Rauhut and Winter 2010). Statistical estimates of consensus, then, quantify the degree of respondent heterogeneity in normative judgments (Jasso 2006).

Following Jasso (2006), we quantified the degree of consensus (or respondent heterogeneity) by estimating *random intercept and random slope* hierarchical linear models (HLM), and compared these models to models in which random intercepts and/or random slopes were fixed, or constrained to zero (see also Jasso and Opp 1997). Improvements to model fit would suggest that respondents differed in their “mean” views of the norm to marry (i.e., random intercept) *and* that respondents differed in their views of the circumstances demarcating the norm to marry (i.e., random slopes). Lack of statistical improvements to model fit, by contrast, would suggest inter-respondent homogeneity in intercepts and slopes, indicating consensus among respondents in their views of the norm to marry. Thus, standard deviations of the random effects provide metrics for the degree of consensus about the norm to marry.

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⁹ Measuring intensity is not straightforward: it is difficult to differentiate intensity from measurement error or response style. For this reason, we assume that measurement error and response biases are minimal, which is a weak assumption given our experimental design and survey format.

If random intercepts and/or random slopes were observed, then the next step is to investigate which subpopulations—if any—accounted for the random variation in intercepts and/or slopes (Jasso 2006). To do this statistically, we estimated models in which race, gender, and SES predicted random intercepts and random slopes (i.e., cross-level interaction effects).

If we observe mean differences between groups (e.g., Black and White respondents), the final step is to identify whether within group differences (or variances) are the same for each subpopulation (e.g., Black respondents have greater or lesser consensus than White respondents). To do this statistically, we estimated equality of variances across race, gender, and education.

We thus estimated a series of nested two-level HLMs with robust standard errors in which i vignettes ($i = 1, \dots, 10$) were nested within j individuals ($j = 1, \dots, 1823$). Even though our dependent variable was a 9-point bipolar scale, we chose to model the scale within a linear framework (rather than treat the scale as a limited dependent variable). We did this for a number of reasons. First, the interpretation of estimates from linear models is more intuitive than ordered logit models, especially for higher-order interaction terms. Second, HLM fitted values produced estimates within the lower and upper bounds of the dependent variable (0 and 8 respectively). Third, we found little to no difference in estimates of main effects from linear and ordered logit regression models. The statistical models we estimated along with various tests of modeling assumptions are in the Supplemental Materials online.

Results

The Character of the Norm to Marry: Polarity, Intensity, Conditionality, and Consensus

Of the 1,823 respondents in our sample, slightly over 2 percent (46 respondents) did not rate any of the vignettes, and slightly over 22 percent (403 respondents) rated between one and

nine vignettes. Our analyses use all available data, and include respondents who rated ten or fewer vignettes by answering “don’t know” or refusing to answer ($N = 1,777$).

Polarity of the norm to marry. 8.16 percent of the respondents did not subscribe to a marriage norm by providing neutral ratings of 4 for all evaluated vignettes (see Table 2). In contrast, 15.08 percent of the respondents subscribed to a prescriptive norm, and 13.96 percent subscribed to a proscriptive norm. A majority of the sample endorsed a bipolar norm to marry: 62.80 percent of the respondents vacillated between proscribing and prescribing marriage as a result of Mike and Jessica’s changing circumstances.¹⁰

Conditionality of the norm to marry. Beyond the 62.80 percent of respondents who subscribed to a bipolar norm—which, by definition, is a conditional norm—24.09 percent of the respondents subscribed to a conditional proscriptive norm or a conditional prescriptive norm, for a total of 86.89 percent. Altogether, the norm to marry in the United States is overwhelmingly conditional.

Intensity of the norm to marry. The norm to marry is intense among respondents who subscribed to an unconditional marriage norm, as they were relatively far from the neutral rating. For unconditional proscriptive norms ($N = 33$), the average distance (of the individual-specific mean ratings) from the neutral value was 3.24, while the average distance was 3.38 for unconditional prescriptive norms ($N = 55$). The small number of respondents (4.95 percent) who subscribed to an unconditional norm to marry favored extreme values, and the level of intensity was statistically equivalent for proscriptive and prescriptive norms, $b = 0.139$, $SE = 0.203$, $p = .495$.¹¹

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¹⁰ Robustness checks confirmed that respondents who uniformly proscribed or prescribed marriage did not randomly receive ten vignettes that were (un)favorable to marriage.

¹¹ Results from an OLS regression with cluster-robust standard errors by individuals ($N = 88$, $n = 880$).

Among conditional norms, the average distance was 1.72 for conditional proscriptive norms ($N = 215$) and 1.89 for conditional prescriptive norms ($N = 213$). The intensity of the norm to marry was statistically equivalent for respondents who subscribed to either a conditional proscriptive or prescriptive norm, $b = 0.171$, $SE = 0.103$, $p = .100$.¹² For individuals who subscribed to a bipolar marriage norm ($N = 1,116$), the average distance was 2.35, or moderately intense ratings.

Taken together, the majority of the sample subscribed to a bipolar marriage norm where the average level of intensity was between “not very strong” and “somewhat strong”. The patterns in the data thus indicate that the overall intensity of the marriage norm was low-to-moderate.

Consensus about the norm to marry. The analysis of polarity, conditionality, and intensity indicates disagreement among respondents (see Figure A1 in the Appendix for histograms of individual-specific mean ratings of the norm to marry by norm type). To investigate consensus formally, we estimated the two-level HLMs outlined above. A likelihood ratio test rejected a model of fixed intercepts and slopes for each vignette dimension in favor of random intercepts and fixed slopes, $\chi^2(1) = 4114.92$, $p < .001$. In addition, significant variation was observed around the intercept as indicated by the level-2 error term, $SD(\text{intercept}) = 1.427$ (see Table 3, model 1). This indicates differences across individuals in their tendencies to proscribe or prescribe marriage, thereby demonstrating respondent heterogeneity and a lack of normative consensus (Jasso 2006).¹³

¹² Results from an OLS regression with cluster-robust standard errors by individuals ($N = 428$, $n = 4,004$).

¹³ A null HLM yielded a moderate intra-class correlation (ICC) of .289. The ICC tells us that 28.9 percent of the variation in the norm to marry occurred between individuals, while 71.1 percent of the variation was within individuals; suggesting that ratings of vignettes by the same individual tended to be different.

Next, we relaxed the assumption of fixed slopes, so that each respondent had a unique intercept *and* a unique slope for each vignette dimension. The results of a likelihood ratio test rejected a model of random intercepts and fixed slopes in favor of both random intercepts and random slopes, $\chi^2(11) = 1134.83, p < .001$. Stated differently, respondents differed with one another in their tendencies to proscribe or prescribe marriage *and* respondents placed different weights on the pecuniary and non-pecuniary circumstances demarcating the norm to marry. Thus, there is disagreement among the respondents over the norm to marry.

The Circumstances Demarcating the Norm to Marry

We now investigate respondents' views about which circumstances demarcate, or serve as boundaries of, the norm to marry. We begin with a descriptive analysis that collapses the 9-point evaluation task into three categories: *Proscriptive* (should not marry), *Nonexistent* (neutral), and *Prescriptive* (should marry). In Figure 1, we present histograms of the distribution of the collapsed dependent variable by levels of each respective vignette dimension.

For education, the percentage of responses was roughly equivalent when either Mike or Jessica had no high school diploma or a high school diploma. However, 35 percent of responses—a plurality—prescribed marriage when either Mike or Jessica had a 4-year college degree. Mike and Jessica's earnings produced slightly different, albeit expected, results. When Mike or Jessica was unemployed, a plurality of responses prohibited marriage (between 42 and 48 percent). But when Mike or Jessica was employed and earning money, the plurality switched from proscriptive to prescriptive, with the size of the plurality increasing as the amount of earnings increased. This shift was most noticeable for Mike's earnings: only 23 percent of responses proscribed marriage, while 43 percent prescribed marriage when Mike was earning

\$50,000 a year. Unlike education and earnings, assets generated only minor differences in the percentage of responses.

With respect to non-pecuniary circumstances, we observed a shift from a plurality of responses proscribing marriage (43 percent) to a plurality prescribing marriage (43 percent) as Mike and Jessica's relationship quality went from bad to good. Pregnancy status generated similar results. When Mike and Jessica were not pregnant, 37 percent of the evaluations proscribed marriage. But when Mike and Jessica were pregnant, 40 percent of the evaluations prescribed marriage. Overall, Figure 1 shows that responses varied dramatically between vignette dimensions and levels.

Table 3 presents results of two-level HLMs in which random slopes were fixed (model 1) versus freely estimated (model 2). In model 1, we observed strong statistical support for all seven vignette dimensions. The pecuniary circumstances (Mike and Jessica's education, Mike and Jessica's earnings and employment) affected views of marriage as expected: the greater the education and earnings, the more prescriptive the norm to marry. Familywise tests of each dimension were statistically significant (see Table 3), as were pairwise tests between the 2nd and 3rd levels of each dimension (save for the 2nd and 3rd levels of Jessica's education). Interestingly, the effect of earnings was not equal for Mike and Jessica. Mike's earnings had stronger effects on the norm to marry than Jessica's earnings. Overall, our experimental design and sample finds evidence of an economic bar to marriage (Gibson-Davis et al. 2005; Gibson-Davis et al. 2018) that weighs men's labor force characteristics more heavily than women's (Gibson-Davis 2009; Smock et al. 2005).

The non-pecuniary circumstances in model 1 yielded similar dynamics: a pregnancy and a good quality relationship elicited stronger prescriptions to marry than no pregnancy or a bad

quality relationship, respectively. In the contemporary United States, pregnancy continues to guide views about the necessity of marriage (Cherlin et al. 2008). Likewise, a bad quality relationship leads to opposition to marriage, likely due to beliefs about the futility of marriage (Wilcox and Nock 2006). Interestingly, relationship quality—as operationalized here—had a stronger effect on the norm to marry than pregnancy. The higher-order needs of both individuals are thus more relevant to setting the norm’s boundaries than a premarital conception.

Table 4 reports select linear predictions (and 95 percent CIs) by profiles of Mike and Jessica’s pecuniary (rows 1, 2, and 3) and non-pecuniary (columns 1 through 4) circumstances calculated from Table 3, model 1 estimates. Starting with a low economic standing profile (i.e., Mike and Jessica did not have a HS diploma, were unemployed, and had no assets), respondents proscribed marriage between “not very strong” and “somewhat strong” (a linear prediction of 1.548) when Jessica was not pregnant and the quality of their relationship was bad. Only when Mike and Jessica achieved a moderate economic standing (i.e., both had a HS degree, earned \$20,000 a year, and had assets) and were pregnant or had a good quality relationship did respondents prescribe marriage. Respondents prescribed marriage to the greatest extent—between “not very strong” and “somewhat strong” (a linear prediction of 6.405)—when Mike and Jessica achieved a high economic standing (i.e., both had a 4-year college degree, earned \$50,000 a year, and had assets), when Jessica was pregnant, and when the quality of their relationship was good. Taken together, the linear predictions illustrate how strong the average treatment effects of the circumstances were in motivating respondents to proscribe or prescribe marriage.

Returning to Table 3, we relaxed the assumption of fixed slopes in model 2 to investigate which vignette dimensions varied in their magnitude. Of the pecuniary circumstances, only the

effect of Mike earning \$50,000 and Jessica earning \$50,000 varied to a great extent between respondents (see Figure 2 for an illustration). There was generally consensus among respondents over the effects of Mike's education, Jessica's education, Mike earning \$20,000, Jessica earning \$20,000, and their shared assets on the norm to marry. In contrast, both pregnancy status and the quality of relationship varied to a great degree between respondents in their effects on the norm to marry. As Figure 2 shows, most respondents were prescriptive of marriage (to varying degrees) when Mike and Jessica were expecting a child, while a small minority of respondents (roughly a quarter) were proscriptive of marriage under the same conditions. Similar dynamics were observed for the quality of Mike and Jessica's relationship.

In short, both pecuniary and non-pecuniary circumstances served as boundaries between who should and should not marry. Moreover, circumstances demarcating the norm to marry exhibited more consensus in some cases (education and assets) and less consensus in others (earnings, pregnancy status, and quality of relationship). Overall, however, we observed relatively little consensus.

Consensus Within and Between Subpopulations: Race, Gender, and SES

In the next subsection, we identify whether individual-level tendencies to proscribe or prescribe marriage are a function of the race, gender, and SES of respondents. After that, we investigate whether variation in the weights placed on the circumstances driving the norm to marry is a function of the race, gender, and SES of respondents.¹⁴

The character of the norm to marry within and between subpopulations. We now present estimates from a two-level HLM that includes the race, gender, and SES of respondents as

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¹⁴ Excluding the individual-level control variables (e.g., religious affiliation, religiosity, religious attendance, etc.) did not alter the substantive results presented in Tables 5 and 6.

predictors of normative differences. The model, in Table 5, controlled for vignette dummies, vignette dimensions, and the individual-level control variables outlined in the Data and Methods section. These results show that White respondents and male respondents prescribed marriage more strongly than Black respondents and female respondents, respectively. There were weak effects for SES: a familywise test for the effect of education was statistically non-significant, $\chi^2(2) = 1.99$, $p > .10$; the effect of income was statistically non-significant, $b = -0.070$, $SE = 0.040$, $p = .082$; and a familywise test for the effect of occupation was statistically non-significant, $\chi^2(10) = 12.69$, $p > .10$. Next, we investigate whether within-group variation was the same between subpopulations (e.g., consensus is greater or lesser among White respondents than Black respondents). First, in Figure 3, kernel density plots of individual-specific mean ratings of the norm to marry revealed that the amount of disagreement (or lack of consensus) within subpopulations was comparable between subpopulations (e.g., disagreement among Black and White respondents was comparable). Second, tests of equality of variances across race, gender, and education yielded statistically non-significant results, providing statistical support for the visualized patterns in Figure 3.¹⁵ In short, male and female respondents, and Black and White respondents differed in their tendencies to prescribe marriage, but the amount of disagreement (or lack of consensus) within groups was comparable between groups.

The circumstances demarcating the norm to marry between subpopulations. Earlier, we found that some circumstances demarcating the norm to marry exhibited greater disagreement than other circumstances. We next investigate how much race, gender, and SES account for this disagreement by estimating a two-level HLM with cross-level moderation in which the race,

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¹⁵ Black vs White: $F(2, 1777) = 1.134$, $p = .060$. Female vs male: $F(2, 1777) = 0.993$, $p = .925$. HS diploma vs some college: $F(2, 1181) = 0.895$, $p = .178$. HS diploma vs BA+: $F(2, 1185) = 0.977$, $p = .779$. Some college vs BA+: $F(2, 1188) = 1.091$, $p = .285$.

gender, and education of respondents interacted with each vignette dimension.¹⁶ This model controlled for vignette dummies, the individual-level control variables, and the other measures of SES (income and occupation) outlined in the Data and Methods section. The model in Table 6 shows that the majority of cross-level interaction effects were statistically non-significant, and those that were statistically significant yielded trivial substantive differences in the slopes (see Figures S1 and S2 in the Supplemental Materials online). The two cross-level interaction effects that did yield practical and substantive differences were between race and quality of relationship as well as race and pregnancy status. The cross-level interaction effects show that the quality of relationship dimension had a stronger positive effect on the norm to marry for White respondents than for Black respondents (see Figure 4, panel A). The pregnancy status dimension had a weaker positive effect on the norm to marry for Black respondents than for White respondents (see Figure 4, panel B). Overall, we found evidence that Black and White respondents placed different levels of importance on how relationship quality and pregnancy status affect the norm to marry. All other circumstances yielded relatively consistent effects regardless of race, gender, or SES.

To provide a sense of the magnitude of disagreement across demographic groups, Table 7 reports select linear predictions (and 95 percent CIs) by the race and gender of respondents as well as Mike and Jessica's non-pecuniary circumstances (estimates calculated from model 1 in Table 6). When Jessica was not pregnant and the quality of Mike and Jessica's relationship was bad, predicted values differed, at most, by 1 point (or a standardized mean difference of 0.379).¹⁷ But when Jessica was pregnant and the quality of Mike and Jessica's relationship was good,

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¹⁶ See Tables S14 and S15 in the Supplemental Materials online for cross-level interactions between income and the vignette dimensions (Table S14) as well as occupation and the vignette dimensions (Table S15). A statistically significant cross-level interaction was not consistently observed across the different operationalizations of SES.

¹⁷ Standardized mean difference calculated as follows: $\frac{\text{difference in predicted values}}{\text{pooled standard deviation}}$

predicted values differed to a moderate extent, with Black females and White males, for instance, differing by 1.383 points (or a standardized mean difference of 0.526).

Robustness and Sensitivity Checks

Robustness and sensitivity checks are in the Supplemental Materials Online. First, we estimated nested models with all possible higher-order interactions between vignette dimensions (i.e., two-way interactions, three-way interactions, etc.). According to the Bayesian information criterion, model 1 in Table 3 was the best fitting model (Table S16). Second, characteristics of subpopulations may intersect in compelling ways to pattern norms about marriage in the United States. Poor Black Americans, for instance, exhibit different marriage patterns than middle-class Black or White Americans (Raley et al. 2015). To investigate intersectionality, we estimated a series of models predicting random intercepts and random slopes by interacting the race, gender, and SES of respondents. Overall, models suggest that race, gender, *and* SES did not interact in complex (or consistent) ways to influence ratings of who should or should not marry (Tables S17 and S18). Third, the main effects were robust to alternative modeling procedures, namely two-level ordered logit (Tables S19 through S21) and multinomial logit regression (Tables S22 and S23). Fourth, the estimates were robust to models that excluded nonexistent norm followers (Tables S24 through S26) as well as models that restricted the analysis to respondents who evaluated all ten vignettes (Tables S27 through S29). Fifth, we estimated all models found in the present manuscript using post-stratification survey weights provided by GfK (Tables S30 through S33). Weighted and unweighted models yielded substantively similar results.

Discussion and Conclusion

The primary goal of the present study was to evaluate the strength of the norm about whether different-sex couples ought to marry in the contemporary United States. By turning our

attention to the measurement of social norms within an experimental context, this article addresses a gap in our understanding of whether the norm to marry is weak and/or unevenly deinstitutionalized across race (Black, White), gender (male, female), and SES (education, income, and occupation). In returning to our four original questions, we provide the following answers.

What is the Character (Polarity, Intensity, Conditionality, Consensus) of the Norm to Marry among Black and White Americans in the United States, and What Does it Imply for the Deinstitutionalization of Marriage Thesis?

While all four types of polarities—proscriptive, prescriptive, bipolar, and nonexistent—were observed in the sample, the majority of respondents subscribed to a bipolar marriage norm, indicating that the norm to marry was overwhelmingly conditional. In terms of intensity, respondents’ overall magnitude of devotion to the marriage norm was low-to-moderate. Regarding consensus, individuals differed in their tendencies to proscribe or prescribe marriage, and placed different weights on the circumstances governing marriage; thus, there is little consensus about the norm to marry.

Taken together, our results support Andrew Cherlin’s (2004) observation that “social norms [defining] people’s behavior in a social institution such as marriage (p. 848)” are weak in the United States. Despite this key finding, our results provide a nuanced picture of the contemporary institution of different-sex marriage: individuals still hold opinions about whether different-sex couples should or should not get married. Only a small minority of individuals are unwilling to state whether others should get married, suggesting a nonexistent norm. The remaining 92 percent of individuals subscribe to a norm, although the nature of the norm is conditional and does not exhibit consensus. Because different standards for action abound, these

findings imply that individuals will be more prone to conflict, negotiation, and debate over who and why people should or should not get married (Cherlin 2004). This is what family scholars have observed in contemporary American marriage for some time, as evidenced by debates over same-sex and interracial marriage (Powell et al. 2010). Yet, it remains to be seen whether more individuals in the United States will come to view the norm to marry as nonexistent and treat marriage as one of many possible family forms, driven by individual choices independent of what one (or others) should or should not do. Or, whether the norm to marry is in a transitional phase, moving from one normative system to another as it absorbs and layers on new types of unions—and represents new types of goals—under the umbrella of marriage.

What are the Circumstances Demarcating, or Serving as Boundaries of, the Norm to Marry among Black and White Americans in the United States?

The majority of respondents subscribed to a conditional norm. One goal of the present study was to map the specific circumstances that predicted variation in—or accounted for the conditionality of—the norm to marry. As expected, pecuniary *and* non-pecuniary circumstances acted as the norm’s boundaries. The education and earnings of Mike and Jessica, their shared assets, as well as their pregnancy status and quality of relationship all drove respondents’ willingness to proscribe or prescribe marriage, with Mike’s earnings and employment having the strongest relative impact.

These findings align with Cherlin’s (2010) view of contemporary marriage in the United States, where marriage requires “a decent job, a good education, and the ability to attract a partner who is likely to treat you fairly, be loyal, and stay with you indefinitely (p. 133).” Our findings support Cherlin’s view of marriage—but also add depth of understanding to the circumstances surrounding the institution of marriage—in two ways. First, we found that an

economic bar is normative in the United States (Gassman-Pines et al. 2017; Gibson-Davis et al. 2018; Ishizuka 2018; Watson and McLanahan 2011), and that the earnings of men (Mike) have stronger positive effects on attitudes toward different-sex marriage than the earnings of women (Jessica) (Gibson-Davis 2009; Smock et al. 2005). Second, pregnancy status and relationship quality have dramatic effects on views of different-sex marriage in the United States (Cherlin et al. 2008; Gibson-Davis et al. 2016; Rackin and Gibson-Davis 2017; Waller and McLanahan 2005). When Mike and Jessica were expecting a child or when the quality of their relationship was good, the relative majority of responses prescribed marriage. The opposite occurred when Mike and Jessica were not pregnant or when their relationship quality was bad: the relative majority of responses proscribed marriage. In short, pregnancies and good quality relationships do engender beliefs that different-sex couples ought to marry, but economic considerations remain principal drivers of the approval of marriage. Still, some economic considerations, like education and assets, were of little practical significance. In the case of assets, this could be because the asset manipulation was relatively small rather than because assets are unimportant: larger amounts of wealth may have proven more persuasive.

Are Individual Tendencies to Proscribe or Prescribe Marriage Universal or Specific to Subpopulations Based on Race (Black, White), Gender (Male, Female), and SES (Education, Income, Occupation)?

The tendency to proscribe or prescribe different-sex marriage was not universally shared. Instead, the (dis)approval of marriage was specific to particular subgroups. Race and gender have unique additive effects on tendencies to proscribe or prescribe marriage (with gender exhibiting a slightly larger effect than race), while SES was statistically unrelated to the norm to marry. Many of these findings support prior research. Women frequently report stronger negative

attitudes toward marriage than men (Sassler and Schoen 1999; Thornton and Young-DeMarco 2001)—which some argue is a function of sharp declines in the earning power of non-college-educated men coupled with gains in the economic self-sufficiency of women (Autor and Wasserman 2013)—while Black Americans are much less likely to marry than White Americans, and, when they do, it is at an older age (Raley et al. 2015; Tucker and Mitchell-Kernan 1995). Black Americans also harbor stronger negative attitudes toward marriage than White Americans (South 1993). Our results, nevertheless, diverge from this literature in two important respects.

First, individual tendencies to proscribe or prescribe marriage were different between Black and White respondents but this effect was neither amplified nor dampened by gender. In other words, we did not find that the Black-White difference among males was significantly larger or smaller than the difference among females. With additive inequalities, linear predictions yielded ratings for White males > Black males > White females > Black females. These inequalities, especially the difference between White males and Black females in attitudes toward different-sex marriage, have been observed in the literature (Wilcox and Wolfinger 2016), but contradict prior Black-White gender differences in attitudes toward marriage (Bulcroft and Bulcroft 1993; South 1993).

Second, we discovered weak support for differences in the norm to marry across levels of SES. Individual tendencies to proscribe or prescribe marriage were similar regardless of respondents' education, income, and occupation. Yet, previous research finds that class is tightly coupled with marriage patterns and attitudes toward marriage (Daugherty and Copen 2016; Gubernskaya 2010; Kuo and Raley 2016; Raley et al. 2015; Torr 2011).

These seemingly conflicting findings can be reconciled by underscoring the SES of the focal couple and *not* the SES of respondents. What we find is that the economic conditions in which a specific marriage takes place demarcates who should and should not get married. Respondents, in other words, endorsed marriage to a greater extent when Mike and Jessica met an economic bar and achieved financial security prior to marriage. This observation was made possible because our experiment disentangled the SES of respondents from the financial and economic status of the couple under evaluation. Even more compelling, we found that the effects of the economic bar and financial security on the norm to marry were the same regardless of the *SES of respondents*. Below, we discuss in greater detail the relationship between respondent characteristics and their assessments of the conditions in which marriage should occur.

Are Circumstances Demarcating the Norm to Marry Universal or Specific to Subpopulations Based on Race (Black, White), Gender (Male, Female), and SES (Education, Income, Occupation)?

We found that the effects of some circumstances varied statistically across the race, gender, and SES of respondents, but many effects were of small practical significance, save for Black-White differences in the effects of relationship quality and pregnancy status on the norm to marry. These results contribute to the literature in two important ways. First, our findings support the idea that Black-White differences in marriage patterns stem from compositional factors. Compositional arguments contend that marriage patterns differ between Black and White Americans because the pool of eligible partners is more constrained for Black Americans than White Americans (Lichter et al. 1992; Schoen and Kluegal 1988; Wilson 1987), not because Black Americans place a greater emphasis on having economic supports in place prior to marriage than White Americans (Bulcroft and Bulcroft 1993; Edin and Kefalas 2005). Our

experiment reveals that Black and White respondents view economic resources similarly: Mike and Jessica's education, earnings and employment, and assets affect prescriptions of marriage *the same way* regardless of the race or SES of respondents. It is not that Black respondents view the economic bar or financial status differently than White respondents, it is that Black respondents, on average, prescribe different-sex marriage to a lesser extent than White respondents. We interpret this to mean that Black Americans may have—as Wilson (1987, 1996, 2009) contends—rejected marriage norms due to facing decades of institutional racism and economic dislocations unique to the Black population. In other words, economic and structural cleavages between Black and White Americans may have produced various cultural shifts such as the deinstitutionalization of marriage in the Black community.

Second, we found that non-pecuniary circumstances demarcating the norm to marry *did vary* by the race and—to a lesser extent—the SES of respondents. Although strongly positive for both racial groups, the effect of relationship quality on prescriptions of different-sex marriage was stronger for White respondents than Black respondents. Qualitative and quantitative research shows that fears of infidelity and distrust of romantic partners is a common roadblock to marriage in the Black community (Anderson 1999; Carlson et al. 2004; Edin 2000; Estacion and Cherlin 2010; Edin and Kefalas 2005; Wilcox and Wolfinger 2016). Given these barriers, a potential interpretation of our findings is that Black Americans may be more skeptical of signifiers of relationship quality than White Americans. Like relationship quality, research observes Black-White differences in the relation between childbearing and marriage, with Black Americans interpreting pregnancy and childbearing as calling for marriage less than White Americans (Barber et al. 2015). Our study corroborates these findings: pregnancy status yields stronger prescriptions of marriage for White respondents than Black respondents. The results,

overall, buttress findings from the literature and lend experimental evidence in support of prior ethnographic observations.

Limitations and Directions for Future Research

Our research is not without limitations. First, future research should oversample individuals with less than a high school diploma. While Cherlin (2020) distinguishes between non-college educated and college-educated, including respondents without a high school diploma is important given the rich ethnographic research probing views of marriage among individuals in extreme poverty who often drop-out or fail to complete their high school education (Edin and Kefalas 2005). Having respondents without a high school diploma would allow us to better generalize our results to those subpopulations even though we observe variation on income and occupation.

Second, future research should feature a comprehensive range of ethnoracial groups in the sampling frame. Research shows that Latino and Asian Americans exhibit different marriage and family patterns than Black and White Americans (Raley et al. 2015). Latino Americans, for instance, have lower rates of marriage, higher rates of divorce, and higher rates of non-marital childbearing than White Americans (Cherlin 2020; Manning et al. 2015; U.S. National Center for Health Statistics 2018). We chose to limit our sample to Black and White respondents given Cherlin's (2004, 2020) focus on Black-White differences, but our FSE would yield compelling discoveries if administered to other ethnoracial groups. An application of our FSE to a representative sample of U.S. adults is a key goal for future research.

A third stream of research might extend our FSE to hypothetical different-sex *and* same-sex couples. A number of interesting questions could be addressed with this research: What is the character of the norm to marry for same-sex couples? Does the character of this norm vary by the

gender of the couple? How does the character of the norm vary according to the sexual orientation of respondents? Research shows that attitudes toward same-sex marriage are changing in the United States but still exhibit divides along race, gender, SES, and especially religion (Powell et al. 2010). By addressing such questions with an FSE, we could experimentally test whether marriage as an institution has expanded to account for new types of romantic partnerships or has become increasingly obsolete in the face of same-sex unions.

Fourth, we investigated a limited number of circumstances demarcating the norm to marry, which may have affected estimates of conditionality and consensus. This route was taken to see whether people (dis)approve of different-sex marriage under commonplace marriage conditions and to offer a conservative test of the deinstitutionalization of marriage thesis, but other circumstances likely drive views of marriage. It would be useful for future research to investigate the impact of these alternative conditions. For instance, there are a number of other non-pecuniary circumstances that might govern the norm to marry, including control over household decisions, fear of domestic violence, drug use, and multipartner fertility (Edin 2000; Edin and Kefalas 2005; Cherlin et al. 2008; Gibson-Davis et al. 2005; Smock et al. 2005; Waller 2002). Likewise, it would be beneficial to explore the bounds or limits of Mike's and Jessica's earnings and employment. We restricted our analysis to median incomes, but FSEs in the future should introduce and manipulate higher income earning couples. Investigating the impact of these alternative conditions would supply further revelations about the character of the norm to marry.

Despite these limitations, our findings should be of interest to scholars broadly concerned with social norms and institutions. By crafting a novel FSE and using it to probe the character of norms about marriage, this research presents evidence on how measurement tools can shine new

light on established areas of study—beyond collective action (Jasso and Opp 1997), bridewealth (Horne et al. 2018), and inequality (Rauhut and Winter 2010)—where institutions loom large as antecedent and consequent conditions. Following Cherlin’s (2020) recent theoretical considerations, we suggest that future work focus on integrating the measurement of social norms with models of institutional change that underscore processes of institutional “layering” and “absorbing” (see Lauer and Yodanis 2010). This union between measurement and theory could fundamentally alter what we know about marriage and the family.

In conclusion, the present article extends our understanding of the deinstitutionalization of marriage by subjecting it—and other arguments found in the marriage and family literature—to gold standards of research: experimental methods and random samples. By using a FSE, the present article unearthed important observations about the increasingly stratified character of different-sex marriage in the United States (Cherlin 2020). We found that the norm about whether different-sex couples ought to marry is weak, that it varies across certain social groups, and that the relation between (non)pecuniary circumstances and views of marriage are causal. Future research can extend this work by tracking temporal variation in the norm to marry with an experimental design similar to our own. This would grant marriage and family scholars traction on the dynamics of deinstitutionalization. Researchers could follow trends in how the norm to marry is weakening: Is the norm becoming more bipolar, more conditional, less intense, or all three? Or, conversely, is the norm becoming more proscriptive or prescriptive, more unconditional, or more intense? The continued use of FSEs will help sociologists answer these sorts of questions.

Table A1. Summary Statistics and Descriptions of Individual-Level Variables

Name	Definition	Mean	SD	Min.	Max.	N
<i>Dependent variable</i>						
Marriage norms scale	Should Mike and Jessica marry or not marry?	4.03	2.62	0	8	16804
DK	Don't know	6.76%	---	---	---	1232
Refused	Refused to answer	1.06%	---	---	---	194
<i>Individual-level independent variables</i>						
Race						
Black (omitted)	Non-Hispanic Black respondent	50.08%	---	---	---	913
White	Non-Hispanic White respondent	49.92%	---	---	---	910
Gender						
Female (omitted)	Female respondent	50.03%	---	---	---	912
Male	Male respondent	49.97%	---	---	---	911
Education						
High school diploma (omitted)	High school diploma	33.41%	---	---	---	609
Some college	Some college (no degree) or an Associate's degree	33.35%	---	---	---	608
Bachelor's degree or higher	Bachelors, Masters, Professional, or Doctorate degree	33.24%	---	---	---	606
Household income per capita		38859.99	41159.70	357.14	365397	1823
ln(household income per capita)		10.08	1.11	5.87	12.80	1823
Occupation						
Class 1	Higher- and lower-grade professionals, administrators, managers, and officials	27.70%	---	---	---	505
Class 2	Routine non-manual and service employees, higher- and lower-grade	13.43%	---	---	---	245
Class 3	High-grade technicians and repairers, public safety workers, performers, and supervisors of manual workers	2.02%	---	---	---	37
Class 4	Skilled manual workers, lower-grade technicians, installers, and repairers	2.63%	---	---	---	48
Class 5 (omitted)	Semi-skilled and unskilled manual workers, not in agriculture	7.40%	---	---	---	135
Class 6	Agricultural	0.32%	---	---	---	6
Class 7	Military	0.60%	---	---	---	11
Class other	Occupation unknown	7.56%	---	---	---	138
Not working	layoff, looking for work, and other	9.81%	---	---	---	179
Retired		23.03%	---	---	---	420
Disabled		5.10%	---	---	---	93
Refused to answer		0.32%	---	---	---	6
<i>Individual-level control variables</i>						
Age	Age in years	51.55	16.47	18	91	1823
Marital status						
Married (omitted)		52.98%	---	---	---	966
Widowed		5.70%	---	---	---	104
Divorced		12.01%	---	---	---	219
Separated		1.75%	---	---	---	32
Never married		27.53%	---	---	---	502
Cohabitation status						
Present cohabitation (omitted)	Presently cohabitating with partner	6.96%	---	---	---	127
Married cohabitation	Married and presently cohabitating with partner	3.73%	---	---	---	68

Past cohabitation	Cohabited with a partner in the past	40.59%	---	---	---	740
Never cohabitation	Never cohabited with a partner in the past	45.58%	---	---	---	831
DKPNS	Don't know or prefer not to say	2.24%	---	---	---	41
Refused	Refused to answer	0.87%	---	---	---	16
Head of household	Head of household (1 = yes, 0 = no)	84.26%	---	---	---	1823
Household size	Number of people in the respondent's household	2.53	1.47	1	12	1823
Housing type	Type of house in which respondent resides					
One-family house, detached (omitted)		64.56%	---	---	---	1177
One-family house, attached		10.09%	---	---	---	184
Apartment building		22.11%	---	---	---	403
A mobile home		2.91%	---	---	---	53
Boat, RV, van, etc.		0.33%	---	---	---	6
Ownership status of living quarters						
Owned or being bought (omitted)		64.95%	---	---	---	1184
Rented for cash		31.98%	---	---	---	583
Occupied without payment of rent		3.07%	---	---	---	56
MSA Status						
Metro (omitted)	Proportion of panel respondents living in metro areas	87.22%	---	---	---	1590
Non-metro	Proportion of panel respondents living in non-metro areas	12.78%	---	---	---	233
Region						
Northeast	Proportion of panel respondents living in the Northeast region	18.16%	---	---	---	331
Midwest	Proportion of panel respondents living in the Midwest region	20.95%	---	---	---	382
South	Proportion of panel respondents living in the South region	45.15%	---	---	---	823
West (omitted)	Proportion of panel respondents living in the West region	15.74%	---	---	---	287
Marriage judgments	Appropriate to judge whether people should marry (0 = no, 8 = yes)	2.45	2.34	0	8	1806
GSS vocabulary test	5-item GSS vocabulary test (space, broaden, emanate, edible, animosity). Scale indicates number of correct items.	3.73	1.09	0	5	1823
Religious affiliation						
Mainline protestant (omitted)	Panel respondent identifies as mainline protestant (e.g., Lutheran, Methodist)	12.72%	---	---	---	232
Pentecostal	Panel respondent identifies as Pentecostal (e.g., Pentecostal, Assemblies of God)	6.14%	---	---	---	112
Evangelical protestant	Panel respondent identifies as evangelical protestant (e.g., Adventist, Baptist)	26.22%	---	---	---	478
Black protestant	Panel respondent identifies as Black protestant (e.g., African Methodist)	1.59%	---	---	---	29
Non-traditional fundamentalist	Panel respondent identifies as non-traditional fund. (e.g., Jehovah's Witnesses)	2.30%	---	---	---	42
Catholic	Panel respondent identifies as Catholic (e.g., Roman Catholic, Orthodox)	13.16%	---	---	---	240
Jewish	Panel respondent identifies as Jewish	1.48%	---	---	---	27
Christian, non-denominational	Panel respondent identifies as Christian, non-denominational	7.67%	---	---	---	140
Other denomination	Panel respondent identifies as other religious group (e.g., Buddhist, Hindu)	1.15%	---	---	---	21
Atheist-agnostic	Panel respondent identifies as Atheist or Agnostic	4.22%	---	---	---	77
Affiliation not listed	Panel respondent's religious group is not listed	2.08%	---	---	---	38
Religiously unaffiliated (i.e., none)	Panel respondent does not identify with any religious group	13.11%	---	---	---	239
DKPNS	Don't know or prefer not to say religious affiliation	7.40%	---	---	---	135
Refused	Refused to answer	0.71%	---	---	---	13
Religiosity	How religious do you consider yourself to be?					
Not at all religious (omitted)		12.61%	---	---	---	230
Not very religious		15.85%	---	---	---	289
Somewhat religious		40.09%	---	---	---	731

Very religious		24.30%	---	---	---	443
DKPNS	Don't know or prefer not to say	6.47%	---	---	---	118
Refused	Refused to answer	0.66%	---	---	---	12
Religious attendance	How often do you attend religious services?					
Never (omitted)		22.00%	---	---	---	401
Once a year or less		15.80%	---	---	---	288
A few times a year		18.65%				340
Once or twice a month		8.83%	---	---	---	161
Once a week		20.84%	---	---	---	380
More than once a week		13.17%				240
DKPNS	Don't know or prefer not to say	0.33%	---	---	---	6
Refused	Refused to answer	0.38%	---	---	---	7

Note: 1,823 GfK panel members each assessed 10 vignettes yielding 18,230 observations.

Figure A1. Frequency Distribution of Individual-Specific Mean Ratings of the Norm to Marry for the Pooled Sample (Panel A), Unconditional Norms (Panel B), Conditional Norms (Panel C), and Bipolar Norms (Panel D)

Note: In Panels B and C, black distributions indicate a proscriptive norm, grey distributions indicate a prescriptive norm.

References

- Anderson, Elijah 1999. *Code of The Street: Decency, Violence, and The Moral Life of The Inner City*. W. W. Norton and Company
- Auspurg, Katrin and Thomas Hinz. 2015. *Factorial Survey Experiments*. Los Angeles, CA: Sage.
- Autor, David and Melanie Wasserman. 2013. "Wayward Sons: The Emerging Gender Gap in Labor Markets and Education." *Third Way*.
- Barber, Jennifer S., Jennifer Eckerman Yarger, and Heather H. Gatny. 2015. "Black-White Differences in Attitudes Related to Pregnancy among Young Women." *Demography* 52: 751-786.
- Bicchieri, Cristina. 2006. *The Grammar of Society: The Nature and Dynamics of Social Norms*. Cambridge University Press.
- Bicchieri, Cristina. 2016. *Norms in the Wild: How to Diagnose, Measure, and Change Social Norms*. Oxford University Press.
- Brown, S. L. 2004. "Union Transitions among Cohabiters: The Significance of Relationship Assessments and Expectations." *Journal of Marriage and Family* 62: 833-846.
- Bulcroft, Richard A. and Kris A. Bulcroft. 1993. "Race Differences in Attitudinal and Motivational Factors in the Decision to Marry." *Journal of Marriage and Family* 55: 338-355.
- Carlson, Marcia, Sara McLanahan, and Paula England. 2004. "Union Formation in Fragile Families." *Demography* 41: 237-261.
- Cherlin, Andrew J. 2004. "The Deinstitutionalization of American Marriage." *Journal of Marriage and Family* 66: 848-861.
- Cherlin, Andrew. 2010. *The Marriage-Go-Round: The State of Marriage and the Family in America Today*. Vintage.
- Cherlin, Andrew. 2020. "Degrees of Change: An Assessment of the Deinstitutionalization of Marriage Thesis." *Journal of Marriage and Family* 82: 62-80.
- Cherlin, Andrew, Caitlin Cross-Barnet, Linda M. Burton, and Raymond Garrett-Peters. 2008. "Promises They Can Keep: Low-Income Women's Attitudes Toward Motherhood, Marriage, and Divorce." *Journal of Marriage and Family* 70: 919-933.
- Coleman, James. 1990. *Foundations of Social Theory*. Harvard University Press.
- Coontz, Stephanie. 2005. *Marriage, A History: How Love Conquered Marriage*. Penguin.
- Cott, Nancy F. 2002. *Public Vows: A History of Marriage and the Nation*. Harvard University Press.
- Daugherty, Jill and Casey Copen. 2016. "Trends in Attitudes about Marriage, Childbearing, and Sexual Behavior: Unites States, 2002, 2006-2010, and 2011-2013." *National Health Statistics Reports* 92: 1-10.
- DeNavas, Carmen, Bernadette D. Proctor, and Jessica C. Smith. 2012. "Income, Poverty, and Health Insurance Coverage in the United States: 2011." *United States Census Bureau*.
- Diefenbach, Heike and Karl-Dieter Opp. 2007. "When and Why Do People Think There Should Be a Divorce? An Application of the Factorial Survey." *Rationality and Society* 19: 485-517.
- Edin, Kathryn. 2000. "What do Low-Income Single Mothers say about Marriage?" *Social Problems* 47: 112-133.
- Edin, Kathryn and Maria J. Kefalas. 2005. *Promises I Can Keep: Why Poor Women Put Motherhood Before Marriage*. University of California Press.

- Erikson, Robert, and John H. Goldthorpe. 1992. *The Constant Flux: A Study of Class Mobility in Industrial Revolutions*. Clarendon Press.
- Estacion, Angela and Andrew Cherlin. 2010. "Gender Distrust and Intimate Unions among Low-Income Hispanic and African-American Women." *Journal of Family Issues* 31: 475-498.
- Gassman-Pines, Anna, Christina M. Gibson-Davis, Corey Vernot, Maggie Butler, Natalie Hall, Lauren Taylor, Katherine Eastwood, and Xinri Zhang. 2017. "They should say 'I Don't': Norms about Midpregnancy Marriage and Job Loss." *Journal of Marriage and Family* 79: 405-418.
- Gibson-Davis, Christina M. 2009. "Money, Marriage, and Children: Testing the Financial Expectations and Family Formation Theory." *Journal of Marriage and Family* 71: 146-161.
- Gibson-Davis, Christina M., Elizabeth O. Ananat, and Anna Gassman-Pines. 2016. "Midpregnancy Marriage and Divorce: Why the Death of Shotgun Marriage has been Greatly Exaggerated." *Demography* 53: 1693-1715.
- Gibson-Davis, Christina M., Kathryn Edin, and Sara McLanahan. 2005. "High Hopes but Even Higher Expectations: The Retreat from Marriage Among Low-Income Couples." *Journal of Marriage and Family* 67: 1301-1312.
- Gibson-Davis, Christina M., Anna Gassman-Pines, and Rebecca Lehrman. 2018. "'His' and 'Hers': Meeting the Economic Bar to Marriage." *Demography* 55: 2321-2343.
- Gubernskaya, Zoya. 2010. "Changing Attitudes toward Marriage and Children in Six Countries." *Sociological Perspectives* 53: 179-200.
- Hechter, Michael and Karl-Dieter Opp (eds.). 2001. *Social Norms*. Russell Sage
- Horne, Christine. 2009. *The Rewards of Punishment: A Relational Theory of Norm Enforcement*. Stanford University Press.
- Horne, Christine, F. Nii-Amoo Dodoo, and Naa Dodua Dodoo. 2013. "The Shadow of Indebtedness: Bridewealth and Norms Constraining Female Reproductive Autonomy." *American Sociological Review* 78: 503-520.
- Horne, Christine, Naa Dodua Dodoo, and F. Nii-Amoo Dodoo. 2018. "The Conditionality of Norms: The Case of Bridewealth." *Social Psychology Quarterly* 81: 319-339.
- Ishizuka, Patrick. 2018. "The Economic Foundations of Cohabiting Couples' Union Transitions." *Demography* 55: 535-557.
- Jackson, Jay. 1966. "A Conceptual and Measurement Model for Norms and Roles." *The Pacific Sociological Review* 9: 35-47.
- Jasso, Guillermina. 2006. "Factorial Survey Methods for Studying Beliefs and Judgments." *Sociological Methods & Research* 34: 334-90.
- Jasso, Guillermina and Karl-Dieter Opp, 1997. "Probing the Character of Norms: A Factorial Survey Analysis of the Norms of Political Action." *American Sociological Review* 62: 947-964.
- Knapp, Stan J. and Greg Wurm. 2019. "Theorizing Family Change: A Review and Reconceptualization." *Journal of Family Theory and Review* 11: 212-229.
- Kuo, Janet Chen-Lan and R. Kelly Raley. 2016. "Diverging Patterns of Union Transition among Cohabitors by Race-Ethnicity and Education: Trends and Marital Intentions." *Demography* 53: 921-935.
- Lauer, Sean and Carrie Yodanis. 2010. "The Deinstitutionalization of Marriage Revisited: A New Institutional Approach to Marriage." *Journal of Family Theory and Review* 2: 58-72.
- Lesthaeghe, Ron. 2014. "The Second Demographic Transition: A Concise Overview of Its Development" *Proceedings of the National Academy of Sciences* 111: 18112-18115.

- Lichter, Daniel T., Diane K. McLaughlin, George Kephart, and David J. Landry. 1992. "Race and the Retreat from Marriage: A Shortage of Marriageable Men?" *American Sociological Review* 57: 781-799.
- Lundberg, Shelly and Robert A. Pollak. 2007. "The American Family and Family Economics." *Journal of Economic Perspectives* 21.
- Lundberg, Shelly, Robert A. Pollak, and Jenna Stearns. 2016. "Family Inequality: Diverging Patterns in Marriage, Cohabitation, and Childbearing." *Journal of Economic Perspectives* 30: 79-102.
- Manning, Wendy D., Susan L. Brown, and Bart Stykes. 2015. *Trends in Births to Single and Cohabiting Mothers, 1980-2013*. National Center for Family and Marriage Research Family Profile FP-15-03.
- Opp, Karl-Dieter. 2013. "Norms and Rationality. Is Moral Behavior a Form of Rational Action?" *Theory and Decision* 74: 389-409.
- Pagnini, Deanna L. and S. Philip Morgan. 1996. "Racial Differences in Marriage and Childbearing: Oral History Evidence from the South in the Early Twentieth Century." *American Journal of Sociology* 101: 1694-1718.
- Powell, Brian, Catherine Bolzendahl, Claudia Geist, and Lala Carr Steelman. 2010. *Counted Out: Same-Sex Relations and Americans' Definitions of Family*. Russell Sage Foundation.
- Rackin, Heather M. and Christina M. Gibson-Davis. 2017. "Low Income Childless Young Adults' Marriage and Fertility Frameworks." *Journal of Marriage and Family* 79: 1096-1110.
- Raley, R. Kelly, Megan M. Sweeney, and Danielle Wondra. 2015. "The Growing Racial and Ethnic Divide in U.S. Marriage Patterns." *Future of Children* 25: 89-109.
- Rauhut, Heiko and Fabian Winter. 2010. "A Sociological Perspective on Measuring Social Norms by Means of Strategy Method Experiments." *Social Science Research* 39: 1181-1194.
- Rosenfeld, Michael J. 2007. *The Age of Independence: Interracial Unions, Same-Sex Unions, and the Changing American Family*. Harvard University Press.
- Rossi, Peter H. and Richard A. Berk. 1985. "Varieties of Normative Consensus." *American Sociological Review* 50: 333-347.
- Ruggles, Steven. 1994. "The Origins of African-American Family Structure." *American Sociological Review* 59: 136-151.
- Sassler, Sharon and Robert Schoen. 1999. "The Effect of Attitudes and Economic Activity on Marriage." *Journal of Marriage and Family* 61: 147-159.
- Schneider, Daniel. 2011. "Wealth and the Marital Divide." *American Journal of Sociology* 117: 627-667.
- Schoen, Robert and James R. Kluegal. 1988. "The Widening Gap in Black and White Marriage Rates: The Impact of Population Composition and Differential Marriage Propensities." *American Sociological Review* 53: 893-907.
- Smock, Pamela J., Wendy D. Manning, and Meredith Porter. 2005. "'Everything's There Except Money': How Money Shapes Decisions to Marry among Cohabitors." *Journal of Marriage and Family* 67: 680-696.
- South, Scott J. 1993. "Racial and Ethnic Differences in the Desire to Marry." *Journal of Marriage and Family* 55: 357-370.
- Sweeney, Megan M. 2002. "Two Decades of Family Change: The Shifting Economic Foundations of Marriage." *American Sociological Review* 67: 132-147.

- Thornton, Arland and L. Young-DeMarco. 2001. "Four Decades of Trends in Attitudes toward Family Issues in the United States: The 1960s through the 1990s." *Journal of Marriage and Family* 63: 1009-1037.
- Thornton, Arland, William G. Axinn, and Yu Xie. 2007. *Marriage and Cohabitation*. University of Chicago Press.
- Torr, Berna M. 2011. "The Changing Relationship between Education and Marriage in the United States, 1940-2000." *Journal of Family History* 36: 483-503.
- Treas, Judith, Jonathan Lui, and Zoya Gubernskaya. 2014. "Attitudes on Marriage and New Relationships: Cross-National Evidence on the Deinstitutionalization of Marriage." *Demographic Research* 30: 1495-1526.
- Tucker, M. Belinda and Claudia Mitchell-Kernan (eds.). 1995. *The Decline in Marriage among African Americans: Causes, Consequences, and Policy Implications*. Russell Sage.
- Tzioumis, Konstantinos. 2018. "Data Descriptor: Demographic Aspects of First Names." *Scientific Data* 5: 180025.
- U.S. National Center for Health Statistics. 2018. *Births: Final Data for 2016*. Retrieved from https://www.cdc.gov/nchs/data/nvsr/nvsr66/nvsr66_01.pdf
- Wallander, Lisa. 2009. "25 Years of Factorial Surveys in Sociology: A Review." *Social Science Research* 38: 505-520.
- Waller, Maureen R. 2002. *My Baby's Father: Unmarried Parents and Parental Responsibility*. Cornell University Press.
- Waller, Maureen R. and Sara S. McLanahan. 2005. "'His' and 'Her' Marriage Expectations: Determinants and Consequences." *Journal of Marriage and Family* 67: 53-67.
- Watson, Tara and Sara McLanahan. 2011. "Marriage Meets the Joneses: Relative Income, Identity, and Marital Status." *The Journal of Human Resources* 46: 482-517.
- Wilcox, W. Bradford and Nicholas H. Wolfinger. 2016. *Soul Mates: Religion, Sex, Love, and Marriage among African Americans and Latinos*. Oxford University Press.
- Wilcox, W. Bradford and Steven L. Nock. 2006. "What's Love Got to Do with It? Equality, Equity, Commitment and Women's Marital Quality." *Social Forces* 84: 1321-1345.
- Wilson, William Julius. 1987. *The Truly Disadvantaged: The Inner City, the Underclass and Public Policy*. University of Chicago Press
- Wilson, William Julius. 1996. *When Work Disappears: The World of the New Urban Poor*. A. Knop
- Wilson, William Julius. 2009. *More than Just Race: Being Black and Poor in the Inner City*. W. W. Norton and Company.

Table 1. Norm to Marry Vignette Dimensions and Levels

Dimension	Level	Text
Mike's education	1	Mike does not have a high school diploma.
	2	Mike has a high school diploma.
	3	Mike has a 4-year college degree.
Mike's earnings and employment	1	He has been unemployed for 2 years.
	2	He has a full-time job and earns about \$20,000 a year.
	3	He has a full-time job and earns about \$50,000 a year.
Jessica's education	1	Jessica does not have a high school diploma.
	2	Jessica has a high school diploma.
	3	Jessica has a 4-year college degree.
Jessica's earnings and employment	1	She has been unemployed for 2 years.
	2	She has a full-time job and earns about \$20,000 a year.
	3	She has a full-time job and earns about \$50,000 a year.
Assets	1	BLANK (i.e., respondent shown nothing).
	2	Mike and Jessica recently inherited \$5,000 each from a mutual, elderly friend.
Relationship quality	1	Mike and Jessica are attracted to one another and treat each other well. But when they have disagreements with each other they argue and feel hurt and misunderstood afterward.
	2	Mike and Jessica are attracted to one another and treat each other well. They have disagreements with each other but they talk it out and try to understand each other better.
Pregnancy status	1	Mike and Jessica are not thinking of having a child at this time.
	2	Mike and Jessica were not thinking of having a child at this time, but they found out that Jessica is pregnant.

Table 2. Polarity and Conditionality of the Norm to Marry

Norm to Marry	Number	% of Sample
<i>Polarity</i>		
Nonexistent ($R = 4$)	145	8.16
Prescriptive ($R > 4$; $r \geq 4$)	268	15.08
Proscriptive ($R < 4$; $r \leq 4$)	248	13.96
Bipolar ($0 < R < 8$; $R \neq 4$; $0 \leq r \leq 8$)	1116	62.80
Total	1777	100
<i>Conditionality</i>		
Nonexistent ($R = 4$)	145	8.16
Unconditional ($R = r$; $r \neq 4$)	88	4.95
Conditional ($VAR(r) \neq 0$)	1544	86.89
Total	1777	100

Note: Polarity and conditionality are defined by the numerical pattern of each respondent's individual-specific mean (R) of the norm to marry ratings (r). **Polarity:** If a respondent assigns a rating of 4 (neutral value) to all N vignettes, this indicates that the respondent does not subscribe to a norm to marry (*nonexistent* norm to marry). If all N of a given respondent's ratings are both 4 and greater than 4, this indicates that the respondent subscribes to a *prescriptive* norm to marry. If all N of a given respondent's ratings are both 4 and less than 4, this indicates that the respondent subscribes to a *proscriptive* norm to marry. If the respondent's ratings span values less than 4 and values greater than 4, this indicates that the respondent subscribes to a *bipolar* norm to marry. **Conditionality:** if a respondent assigns the same non-neutral (i.e., 4) rating to all N vignettes, this indicates that the respondent subscribes to an *unconditional* norm to marry; in all other cases, the norm is regarded as a *conditional* norm to marry.

Table 3. Consensus and Conditionality of the Norm to Marry, Two-Level Hierarchical Linear Models

	Model 1		Model 2	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
<i>Vignette dimensions</i>				
Mike's education				
No HS diploma (omitted)				
HS diploma	0.113**	0.037	0.113**	0.035
4-year college degree	0.191***	0.039	0.205***	0.036
Mike's earnings and employment				
Unemployed 2 years (omitted)				
Full-time job, \$20,000 a year	1.059***	0.040	1.047***	0.039
Full-time job, \$50,000 a year	1.555***	0.046	1.550***	0.045
Jessica's education				
No HS diploma (omitted)				
HS diploma	0.097*	0.040	0.114**	0.037
4-year college degree	0.170***	0.039	0.170***	0.036
Jessica's earnings and employment				
Unemployed 2 years (omitted)				
Full-time job, \$20,000 a year	0.649***	0.036	0.649***	0.034
Full-time job, \$50,000 a year	0.896***	0.040	0.905***	0.039
Mike and Jessica's assets				
Blank (omitted)				
Inherited \$5,000	0.086**	0.032	0.076*	0.030
Relationship quality				
Bad (omitted)				
Good	1.259***	0.044	1.247***	0.043
Pregnancy status				
Not pregnant (omitted)				
Pregnant	0.696***	0.042	0.705***	0.041
Intercept	1.548***	0.087	1.552***	0.084
sd(intercept)	1.427		1.396	
sd(residuals)	1.940		1.642	
sd(Mike HS diploma)			0.155	
sd(Mike 4-year degree)			0.264	
sd(Mike \$20,000 a year)			0.204	
sd(Mike \$50,000 a year)			0.763	
sd(Jessica HS diploma)			0.237	
sd(Jessica 4-year degree)			0.140	
sd(Jessica \$20,000 a year)			0.000	
sd(Jessica \$50,000 a year)			0.412	
sd(Inherited \$5,000)			0.282	
sd(Good relationship quality)			1.128	

sd(Pregnant)		1.243
Vignette dummies	Yes	Yes
Individual-level variables and controls	No	No
Observations	16804	16804
Individuals	1777	1777

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$ (two-tailed)

Note: b = unstandardized slopes, SE = robust standard errors. Model 1 familywise tests include Mike's education, $\chi^2(2) = 24.78$, $p < .001$; Mike's earnings and employment, $\chi^2(2) = 11134.24$, $p < .001$; Jessica's education, $\chi^2(2) = 18.89$, $p < .001$; Jessica's earnings and employment, $\chi^2(2) = 524.61$, $p < .001$. Model 1 pairwise tests include Mike's HS diploma vs 4-year college degree, $\chi^2(1) = 4.01$, $p < .05$; Mike earning \$20,000 vs \$50,000, $\chi^2(1) = 173.14$, $p < .001$; Jessica's HS diploma vs 4-year college degree, $\chi^2(1) = 3.57$, $p = .058$; Jessica earning \$20,000 vs \$50,000, $\chi^2(1) = 48.48$, $p < .001$.

Table 4. Select Linear Predictions of the Norm to Marry

	Bad Relationship Quality		Good Relationship Quality	
	Not Pregnant	Pregnant	Not Pregnant	Pregnant
Low Economic Standing				
Mike and Jessica No HS Diploma	1.548	2.244	2.808	3.504
Mike and Jessica Unemployed No Assets	(1.375, 1.720)	(2.065, 2.424)	(2.642, 2.974)	(3.330, 3.678)
Moderate Economic Standing				
Mike and Jessica HS Diploma	3.554	4.251	4.814	5.511
Mike and Jessica \$20,000 a year Assets	(3.403, 3.706)	(4.086, 4.416)	(4.667, 4.961)	(5.350, 5.671)
High Economic Standing				
Mike and Jessica 4-year College Degree	4.448	5.145	5.708	6.405
Mike and Jessica \$50,000 a year Assets	(4.292, 4.605)	(4.976, 5.314)	(5.559, 5.858)	(6.242, 6.568)

Note: Linear predictions based on model 1 in Table 3 using the delta method (95 percent CIs in parentheses).

Table 5. Consensus of the Norm to Marry across Subpopulations, Two-Level Hierarchical Linear Model

	Model 1	
	<i>b</i>	<i>SE</i>
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.400***	0.090
Gender		
Female (omitted)		
Male	0.507***	0.075
Education		
HS diploma (omitted)		
Some college	0.005	0.092
Bachelor's degree or higher	-0.119	0.103
ln(household income per capita)	-0.070	0.040
Occupation		
Class 1 - Professionals, administrators, etc.	-0.104	0.163
Class 2 - Routine non-manual employees	0.018	0.169
Class 3 - High-grade technicians	0.348	0.310
Class 4 - Skilled manual workers	-0.065	0.238
Class 5 - Manual workers (omitted)		
Class 6 - Agricultural	-0.073	0.740
Class 7 - Military	-0.016	0.573
Class other	-0.386*	0.185
Not working	-0.235	0.179
Retired	-0.007	0.175
Disabled	-0.079	0.207
Intercept	2.541***	0.580
sd(intercept)	1.323	
sd(residuals)	1.943	
Vignette dummies	Yes	
Vignette dimensions	Yes	
Individual-level controls	Yes	
Observations	16562	
Individuals	1747	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note: b = unstandardized slopes, SE = robust standard errors. Control variables included age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments.

Table 6. Consensus of Conditionality of the Norm to Marry across Subpopulations, Two-Level Hierarchical Linear Model with Higher Level Moderation of Lower Level Effects

	Model 1	
	<i>b</i>	<i>SE</i>
<i>Vignette dimensions</i>		
Mike's education		
No HS diploma (omitted)		
HS diploma	0.123	0.082
4-year college degree	0.167	0.086
Mike's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	1.097***	0.092
Full-time job, \$50,000 a year	1.621***	0.111
Jessica's education		
No HS diploma (omitted)		
HS diploma	0.101	0.093
4-year college degree	0.100	0.085
Jessica's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	0.740***	0.080
Full-time job, \$50,000 a year	0.983***	0.089
Mike and Jessica's assets		
Blank (omitted)		
Inherited \$5,000	0.162*	0.068
Relationship quality		
Bad (omitted)		
Good	1.013***	0.097
Pregnancy status		
Not pregnant (omitted)		
Pregnant	0.456***	0.089
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.141	0.154
Gender		
Female (omitted)		
Male	0.855***	0.142
Education		
HS diploma (omitted)		
Some college	-0.105	0.176

Bachelor's degree or higher	-0.472**	0.181
<i>Cross-level interactions</i>		
White × Mike HS diploma	0.013	0.071
White × Mike 4-year degree	0.086	0.073
White × Mike \$20,000 a year	-0.018	0.079
White × Mike \$50,000 a year	-0.050	0.091
White × Jessica HS diploma	0.057	0.075
White × Jessica 4-year degree	-0.064	0.073
White × Jessica \$20,000 a year	-0.004	0.069
White × Jessica \$50,000 a year	-0.024	0.078
White × Inherited \$5,000	-0.052	0.060
White × Good relationship quality	0.235**	0.086
White × Pregnant	0.453***	0.082
Male × Mike HS diploma	-0.027	0.071
Male × Mike 4-year degree	-0.022	0.073
Male × Mike \$20,000 a year	-0.191*	0.079
Male × Mike \$50,000 a year	-0.211*	0.091
Male × Jessica HS diploma	0.084	0.075
Male × Jessica 4-year degree	0.114	0.073
Male × Jessica \$20,000 a year	-0.163*	0.069
Male × Jessica \$50,000 a year	-0.130	0.078
Male × Inherited \$5,000	-0.010	0.059
Male × Good relationship quality	-0.243**	0.086
Male × Pregnant	-0.060	0.082
Some college × Mike HS diploma	-0.003	0.088
Some college × Mike 4-year degree	-0.040	0.092
Bachelor's × Mike HS diploma	0.004	0.086
Bachelor's × Mike 4-year degree	0.062	0.091
Some college × Mike \$20,000 a year	0.076	0.098
Some college × Mike \$50,000 a year	0.024	0.115
Bachelor's × Mike \$20,000 a year	0.120	0.097
Bachelor's × Mike \$50,000 a year	0.204	0.113
Some college × Jessica HS diploma	-0.079	0.093
Some college × Jessica 4-year degree	0.133	0.093
Bachelor's × Jessica HS diploma	-0.081	0.090
Bachelor's × Jessica 4-year degree	0.015	0.088
Some college × Jessica \$20,000 a year	-0.040	0.085
Some college × Jessica \$50,000 a year	0.002	0.096
Bachelor's × Jessica \$20,000 a year	0.027	0.085
Bachelor's × Jessica \$50,000 a year	0.011	0.095
Some college × Inherited \$5,000	-0.139	0.074
Bachelor's × Inherited \$5,000	-0.024	0.072
Some college × Good relationship quality	0.378***	0.107

Bachelor's × Good relationship quality	0.355**	0.104
Some college × Pregnant	-0.023	0.099
Bachelor's × Pregnant	0.182	0.102
Intercept	3.248***	0.633
sd(intercept)	1.272	
sd(residuals)	1.636	
sd(Mike HS diploma)	0.174	
sd(Mike 4-year degree)	0.267	
sd(Mike \$20,000 a year)	0.242	
sd(Mike \$50,000 a year)	0.781	
sd(Jessica HS diploma)	0.273	
sd(Jessica 4-year degree)	0.098	
sd(Jessica \$20,000 a year)	0.000	
sd(Jessica \$50,000 a year)	0.421	
sd(Inherited \$5,000)	0.264	
sd(Good relationship quality)	1.103	
sd(Pregnant)	1.229	
Vignette dummies	Yes	
Individual-level controls	Yes	
Observations	16562	
Individuals	1747	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note: b = unstandardized slopes, SE = robust standard errors. Joint test of significance for cross-level interactions, $\chi^2(44) = 110.09$, $p < .001$. Control variables included age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments.

Table 7. Select Linear Predictions of the Norm to Marry by Race and Gender

Black Female				White Female			
Bad Relationship Quality		Good Relationship Quality		Bad Relationship Quality		Good Relationship Quality	
Not Pregnant	Pregnant	Not Pregnant	Pregnant	Not Pregnant	Pregnant	Not Pregnant	Pregnant
2.705 (1.714, 3.697)	3.162 (2.167, 4.156)	3.719 (2.728, 4.709)	4.175 (3.181, 5.169)	2.847 (1.868, 3.827)	3.757 (2.775, 4.739)	4.096 (3.116, 5.077)	5.006 (4.022, 5.990)

Black Male				White Male			
Bad Relationship Quality		Good Relationship Quality		Bad Relationship Quality		Good Relationship Quality	
Not Pregnant	Pregnant	Not Pregnant	Pregnant	Not Pregnant	Pregnant	Not Pregnant	Pregnant
3.561 (2.578, 4.545)	3.957 (2.967, 4.947)	4.331 (3.357, 5.306)	4.727 (3.744, 5.709)	3.703 (2.731, 4.675)	4.552 (3.572, 5.532)	4.709 (3.741, 5.676)	5.558 (4.583, 6.533)

Note: Linear predictions based on model 1 in Table 6 using the delta method (95 percent CIs in parentheses). All continuous covariates constrained to their minimum value, all factor-variable covariates constrained to their base level, and all pecuniary vignette dimensions constrained to their lowest level (Mike and Jessica no HS diploma, Mike and Jessica unemployed, and no assets).

Figure 1. Histograms of the Norm to Marry by Vignette Dimensions

Note. Percent of total evaluations on the y-axis. 9-point rating task collapsed into three categories on the x-axis: *SN* (not strong at all, not very strong, somewhat strong, and very strong should not marry), *N* (neutral or nonexistent), and *S* (not strong at all, not very strong, somewhat strong, and very strong should marry). HSD = HS diploma, BA = 4-year college degree.

Figure 2. Boxplots of Best Linear Unbiased Predictions of Random Slopes

Note: boxplots show the distributions of magnitudes of each random slope at the individual level. Red stars in each boxplot represent the population-average coefficients estimated from Table 3, model 2. HSD = HS diploma, BA = 4-year college degree.

Figure 3. Kernel Density Plots of Individual-Specific Mean Ratings of the Norm to Marry by Race (Panel A), Gender (Panel B), and Education (Panel C)

Note: HSD = HS diploma, BA+ = Bachelor's degree or higher.

Figure 4. Cross-Level Interaction Effects between Race and Relationship Quality (Panel A) and Race and Pregnancy Status (Panel B) on the Norm to Marry (Table 6)

Note: All continuous covariates constrained to their minimum value and all factor-variable covariates constrained to their base level.

Supplemental Material

Assessing the Deinstitutionalization of Marriage Thesis: An Experimental Test

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1. Statistical Models and Estimation

The research design yields panel data in which i vignettes ($i = 1, \dots, 10$) are nested within j individuals ($j = 1, \dots, 1823$). As a result, we estimated a series nested ordinary least squares and two-level hierarchical linear models (HLM) with and without higher level moderation of lower level effects. The various models we estimated in the main text can be found below.

To begin, we assumed that all respondents could be characterized by a single regression equation. In other words, all respondents had the same tendency to prescribe or proscribe marriage *and* that all respondents placed the same weight on the pecuniary and non-pecuniary circumstances governing the norm to marry (i.e., fixed intercept and fixed slopes model). The single equation we specify was a classic ordinary least squares regression with robust standard errors given by:

$$Y_i = \beta_0 + \beta_k X_{ki} + \delta_i V_i + \varepsilon_i, \quad (1)$$

where Y denotes the norm rating, X_k represent the vector of regressors (i.e., vignette dimensions and levels), V_i denote the vector of vignette dummy variables for vignettes 2 through 10 (vignette 1 is the referent category), β_0 denotes the intercept, β_k denote slope coefficients for X_k , δ_i denote slopes coefficients for V_i , ε denotes the error term (i.i.d.), and i indexes the vignette. Although not shown in the main text, the results suggest a reasonable fit to the data ($N = 16804$, $\chi^2(20) = 3152.53$, $p < .001$).

Next, we relaxed the assumption that respondents had the same tendency to prescribe or proscribe marriage by estimating a two-level random intercept and fixed slopes HLM. This model allowed each respondent to have a unique intercept for the ten evaluated vignettes, but retained the restriction that a single slope for each respective regressor characterized all respondents. The two equations specified were given by:

$$Y_{ij} = \beta_{0j} + \beta_k X_{kij} + \delta_i V_i + r_{ij}, \quad (2)$$

where Equation 2 was a level-1 (or within-level) model that paralleled Equation 1 except for the addition of j , which indexes individual respondents, and the use of r_{ij} , which denotes a random error term (i.i.d) that varies over the population of vignettes. We also specified a level-2 model of between-individual variation in ratings by modeling the intercept, β_{0j} , from Equation 2:

$$\beta_{0j} = \gamma_{00} + \gamma_{0k} W_{kj} + u_{0j}, \quad (3)$$

where γ_{00} refers to the overall population intercept for ratings of the norm to marry (which is the grand mean of ratings across all individuals), W_{kj} denotes a vector of individual-level regressors, γ_{0k} refers to slope coefficients for W_{kj} , and u_{0j} denotes a random error term (i.i.d) for the deviation of the intercept of an individual from the overall population intercept γ_{00} .

Next, we relaxed the assumption of fixed slopes, so that each respondent had both a unique intercept *and* a unique slope for each vignette dimension (i.e., a two-level random intercept and

random slopes HLM). To accomplish this task, we included an additional equation to the model specified in Equations 2 and 3:

$$\beta_{kj} = \gamma_{k0} + \gamma_{kk}W_{kj} + u_{kj}, \quad (4)$$

where β_{kj} denotes a vector of slope coefficients for X_{kij} in respondent j , γ_{k0} is a vector of overall population slope coefficients for X_{kij} , W_{kj} refers to a vector of individual-level regressors, γ_{kk} denotes slope coefficients for W_{kj} , and u_{kj} is a vector of random error terms (i.i.d) for the deviation of the slopes of individual j from the overall population slopes γ_{k0} .

Note that when we probed the character of the norm to marry in the main text (e.g., polarity and intensity), we constrained γ_{0k} in Equation 3 and γ_{kk} in Equation 4 to zero. These two parameters were freed when we investigated whether the norm to marry and the conditions governing the norm to marry varied across subpopulations (see Tables 5 and 6 in the main text).

2. Modeling Assumptions

Tests revealed that the estimates presented in the results section were neither unduly influenced by outliers (results available upon request) nor first-order serial autocorrelation of the level-1 disturbance terms (Woolridge test for first-order autocorrelation, $F(1, 1729) = 0.482, p = .487$), but that heteroscedastic level-1 errors were observed (Breusch-Pagan test for heteroscedasticity, $\chi^2(1) = 8.73, p < .01$). As a result, robust standard errors were used throughout.

To test for possible fatigue effects and other issues related to repeated measures (e.g., unobserved effects that might influence all cases to the same degree for a specified i th vignette), we regressed marriage norm ratings on dummy variables for vignette number with the first vignette serving as the referent category. A Wald test for the joint significance of the vignette dummy variables rejected the null hypothesis that the vignette dummy variables were identical across the 10 vignettes, $\chi^2(9) = 17.43, p = .042$. As a result, we include a vector of vignette dummy variables in the level-1 model (see Equation 1).

Because we randomly assigned levels of each dimension to vignettes and randomly assigned respondents to design-based experimental treatments, we assume that the vignette dimensions are orthogonal to the level-1 and level-2 errors terms (see Equations 1 through 4). While we cannot explicitly test the former, we can test whether vignette dimensions are orthogonal to the level-2 random error term with a classic Hausman specification test estimating fixed- and random-effects econometric models for panel data. In doing so, we failed to reject the null hypothesis of no systematic differences in coefficients, $\chi^2(11) = 17.03, p = .106$. In support of this evidence, the correlation between the vignette dimensions and the level-2 error term was negligible ($r = -0.002$).

3. Assumptions for Unbiased Causal Identification and Inference

Temporal stability and causal transience. First, under two weak assumptions, the assessment of ten vignettes per respondent allows us to estimate unit causal effects in a counterfactual framework and not merely treatment effects on the treated. The two assumptions—temporal stability and causal transience—state that potential outcomes are unaffected by the anticipation of treatments administered in the future (sometimes referred to *anticipation effects*) and that potential outcomes in one period are unaffected by treatments administered in prior periods (sometimes referred to as *spillover effects*) (see Holland 1986; Hainmueller et al. 2014; Morgan and Winship 2007).

To test these assumptions, we estimated (a) two-level models in which each vignette dimension interacted with dummy variables for vignette number, and (b) two-level models with vignette dimensions and lagged $t - 1$ vignette dimensions. We found that (a) Wald tests for the joint significance of the interaction terms failed to reject the null hypothesis that the vignette dimensions were identical across the 10 vignettes, $\chi^2(99) = 107.29, p = .267$, and (b) χ^2 tests for the joint significance of the lagged $t - 1$ vignette dimensions failed to reject the null hypothesis, $\chi^2(11) = 13.85, p = .241$. Given the results, we can assume temporal stability and causal transience, and restricting our analysis to the first vignette assessed—even though we lose statistical power—generated substantive findings similar to those presented in the main document.

SUTVA. The stable unit treatment value assumption (SUTVA) states that unit A's potential outcome is solely a function of whether he or she receives the treatment; assignments or treatments applied to units B through Z have no effect on unit A's potential outcome. A given outcome then is unaffected by treatments assigned to or received by other units. SUTVA, in other words, implies non-interference between units. This assumption is generally maintained in laboratory settings but should be assessed for experimental methods with less control, such as web-based experiments, field experiments, and natural experiments.

We assess SUTVA by exploring the date in which respondents completed the study. The idea here is that respondents who completed the study at a later date could have been influenced by respondents who completed the study at an earlier date. Wald tests failed to reject the null hypothesis that dummy variables for the date in which respondents completed the study were jointly equal to zero, $\chi^2(15) = 20.37, p = .158$; these results also imply an absence of history effects. Furthermore, a Wald test failed to reject the null hypothesis that interaction terms between vignette dimensions and a continuous measure for date of study completion were jointly equal to zero, $\chi^2(11) = 18.45, p = .071$.

Conditional independence and ignorability. Conditional independence—sometimes referred to as ignorability—is the assumption that values assigned to treatment conditions are independent of potential outcomes (i.e., values taken by dependent variables), where “assigning values” describes the process by which treatments obtain their particular values. By manipulating and randomly assigning vignette dimensions to respondents, we satisfy the assumption of conditional independence as well as three other assumptions that underlie conditional independence: (1) treatment assignment is independent of potential outcomes and values of the dependent variables

(i.e., no simultaneity or reflection problems), (2) selection bias is absent, and (3) omitted variable bias is also absent.

To test the assumption of conditional independence we conducted randomization checks. The goal was to look for unexpected correlations between experimental manipulations and observed covariates (e.g., gender). Our randomization checks consisted of regressing each vignette dimension—either logistic or multinomial logistic regression depending on the number of levels per dimension—on the individual-level covariates presented in the main document. We found that the observed covariates were jointly non-significant (p -values $> .05$) for five of the seven vignette dimensions, indicating support for the assumption of conditional independence and that five of the seven vignette dimensions were jointly balanced. However, two other dimensions—*assets* and *relationship quality*—yielded statistically significant joint tests ($p < .05$), indicating that two of the vignette dimensions were conditionally dependent on two observed covariates (i.e., marital status and religious attendance). A common method for dealing with imbalance is by statistically controlling for observed covariates correlated with experimental manipulations (Gerber and Green 2012). This is what we do in the main text.

Monotonicity. The assumption of monotonicity states that there are no units that receive a treatment if assigned to the control group (Angrist et al. 1996; Gerber and Green 2012); or, more generally, that respondents do not do the opposite of his or her assignment, no matter what the assignment. Angrist et al. (1996) classify four types of subjects: (1) *compliers*: subjects who take the treatment if assigned to the treatment condition; (2) *never-takers*: subjects who avoid the treatment if assigned to the treatment condition; (3) *always-takers*: subjects who take the treatment if assigned to the control condition; and (4) *defiers*: subjects who do the opposite of their assignment; they avoid the treatment if assigned to it, and they take the treatment if assigned to the control group. Angrist et al. (1996) refer to never-takers, always-takers, and defiers jointly as *noncompliers*. The presence of noncompliers—and defiers in particular—can downwardly bias average treatment effects. In some experimental designs (e.g., natural experiments like the Vietnam War draft) and in most observational studies, the assumption of monotonicity is frequently violated. But, like classic laboratory experiments, our research design rules out noncompliers by making treatment unavailable to those in the control group and the control unavailable to those in the treatment group. Thus, our assumption of monotonicity is likely valid.

Other considerations. First, none of the dimension combinations produced atypical or unrealistic vignettes (Faia 1980), which heightens concerns about external validity when present since unrealistic combinations deem counterfactuals meaningless. Implausible combinations of vignette dimensions are also known to downwardly bias parameter estimates and foster response biases (Auspurg and Hinz 2015). Since none of the dimensions produced unrealistic combinations, this issue is of little concern.

4. References

- Angrist, Joshua D., Guido W. Imbens, and Donald B. Rubin. 1996. "Identification of Causal Effects Using Instrumental Variables." *Journal of the American Statistical Association* 91: 444-455.
- Auspurg, Katrin and Thomas Hinz. 2015. *Factorial Survey Experiments*. Los Angeles, CA: Sage.
- Faia, Michael A. 1980. "The Vagaries of the Vignette World: A Comment on Alves and Rossi." *American Journal of Sociology* 85: 951-954.
- Gerber, Alan S. and Donald P. Green. 2012. *Field Experiments: Design, Analysis, and Interpretation*. New York, NY: W. W. Norton & Company.
- Hainmueller, Jens, Daniel J. Hopkins, and Teppei Yamamoto. 2014. "Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments." *Political Analysis* 22: 1-30.
- Holland, Paul W. 1986. "Statistics and Causal Inference." *Journal of the American Statistical Association* 81: 945-960.
- Morgan, Stephen L. and Christopher Winship. 2007. *Counterfactuals and Causal Inference: Methods and Principles for Social Research*. Cambridge, MA: Cambridge University Press.

5. Randomized Block Design

Table S1. Number of Vignettes in each Vignette Condition for White Male Respondents with a HS Diploma

Pregnancy Status	Jessica Unemployed			Jessica \$20,000			Jessica \$50,000		
	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000
Not pregnant	90	83	84	87	84	103	84	79	87
Pregnant	90	69	87	89	77	83	82	85	77

Table S2. Number of Vignettes in each Vignette Condition for White Male Respondents with Some College

Pregnancy Status	Jessica Unemployed			Jessica \$20,000			Jessica \$50,000		
	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000
Not pregnant	81	89	94	79	81	87	84	88	83
Pregnant	82	74	80	76	92	82	85	103	80

Table S3. Number of Vignettes in each Vignette Condition for White Male Respondents with a Bachelor's Degree or Higher

Pregnancy Status	Jessica Unemployed			Jessica \$20,000			Jessica \$50,000		
	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000
Not pregnant	81	76	83	84	87	93	84	71	83
Pregnant	91	89	74	84	87	82	81	86	84

Table S4. Number of Vignettes in each Vignette Condition for Black Male Respondents with a HS Diploma

Pregnancy Status	Jessica Unemployed			Jessica \$20,000			Jessica \$50,000		
	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000
Not pregnant	81	85	82	96	90	90	71	77	92
Pregnant	79	78	94	82	102	76	78	91	86

Table S5. Number of Vignettes in each Vignette Condition for Black Male Respondents with Some College

Pregnancy Status	Jessica Unemployed			Jessica \$20,000			Jessica \$50,000		
	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000
Not pregnant	88	84	82	92	84	88	87	78	81
Pregnant	80	92	78	85	96	88	78	84	75

Table S6. Number of Vignettes in each Vignette Condition for Black Male Respondents with Bachelor's Degree or Higher

Pregnancy Status	Jessica Unemployed			Jessica \$20,000			Jessica \$50,000		
	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000
Not pregnant	82	81	76	84	76	94	82	81	89
Pregnant	91	94	86	89	85	79	89	82	80

Table S7. Number of Vignettes in each Vignette Condition for White Female Respondents with a HS Diploma

Pregnancy Status	Jessica Unemployed			Jessica \$20,000			Jessica \$50,000		
	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000
Not pregnant	84	86	85	88	77	87	78	84	79
Pregnant	84	85	74	93	99	90	92	80	75

Table S8. Number of Vignettes in each Vignette Condition for White Female Respondents with Some College

Pregnancy Status	Jessica Unemployed			Jessica \$20,000			Jessica \$50,000		
	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000
Not pregnant	78	77	76	78	92	94	84	80	82
Pregnant	80	84	105	77	94	85	92	79	83

Table S9. Number of Vignettes in each Vignette Condition for White Female Respondents with a Bachelor's Degree or Higher

Pregnancy Status	Jessica Unemployed			Jessica \$20,000			Jessica \$50,000		
	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000
Not pregnant	82	81	81	77	89	89	78	81	92
Pregnant	95	87	86	88	89	76	90	75	80

Table S10. Number of Vignettes in each Vignette Condition for Black Female Respondents with a HS Diploma

Pregnancy Status	Jessica Unemployed			Jessica \$20,000			Jessica \$50,000		
	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000
Not pregnant	85	73	87	76	75	86	81	90	96
Pregnant	92	68	89	71	81	89	90	94	97

Table S11. Number of Vignettes in each Vignette Condition for Black Female Respondents with Some College

Pregnancy Status	Jessica Unemployed			Jessica \$20,000			Jessica \$50,000		
	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000
Not pregnant	82	89	87	85	80	87	83	81	83
Pregnant	88	73	92	86	89	78	90	94	73

Table S12. Number of Vignettes in each Vignette Condition for Black Female Respondents with a Bachelor's Degree or Higher

Pregnancy Status	Jessica Unemployed			Jessica \$20,000			Jessica \$50,000		
	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000	Mike Unemp.	Mike \$20,000	Mike \$50,000
Not pregnant	81	79	86	89	83	100	86	79	92
Pregnant	79	79	88	91	79	83	81	77	88

6. Robustness and Sensitivity Checks, Part 1

Table S13. Consensus of the Norm to Marry across Subpopulations, Two-Level Hierarchical Linear Model with Control Variables Shown

	Model 1	
	<i>b</i>	<i>SE</i>
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.400***	0.090
Gender		
Female (omitted)		
Male	0.507***	0.075
Education		
HS diploma (omitted)		
Some college	0.005	0.092
Bachelor's degree or higher	-0.119	0.103
ln(household income per capita)	-0.070	0.040
Occupation		
Class 1 - Professionals, administrators, etc.	-0.104	0.163
Class 2 - Routine non-manual employees	0.018	0.169
Class 3 - High-grade technicians	0.348	0.310
Class 4 - Skilled manual workers	-0.065	0.238
Class 5 - Manual workers (omitted)		
Class 6 - Agricultural	-0.073	0.740
Class 7 - Military	-0.016	0.573
Class other	-0.386*	0.185
Not working	-0.235	0.179
Retired	-0.007	0.175
Disabled	-0.079	0.207
<i>Individual-level variables</i>		
Age	-0.006*	0.003
Marital status		
Married (omitted)		
Widowed	-0.323	0.169
Divorced	-0.177	0.125
Separated	-0.249	0.235
Never married	-0.219	0.113
Cohabitation status		
Present cohabitation (omitted)		
Married cohabitation	-0.221	0.229
Past cohabitation	-0.255	0.142
Never cohabitation	-0.155	0.140
DKPNS	0.156	0.243

Head of household	-0.180	0.118
Housing type		
One-family house, detached (omitted)		
One-family house, attached	-0.036	0.123
Apartment building	-0.080	0.123
A mobile home	-0.094	0.242
Boat, RV, van, etc.	0.372	0.440
Ownership status of living quarters		
Owned or being bought (omitted)		
Rented for cash	0.249*	0.113
Occupied without payment of rent	0.180	0.246
MSA Status		
Metro (omitted)		
Non-metro	-0.047	0.115
Region		
Northeast	0.042	0.127
Midwest	0.088	0.125
South	0.146	0.111
West (omitted)		
Marriage judgments	0.047**	0.017
GSS vocabulary test		
Zero correct (omitted)		
One correct	-0.080	0.357
Two correct	0.070	0.351
Three correct	-0.191	0.306
Four correct	-0.192	0.302
Five correct	-0.214	0.310
Religious affiliation		
Mainline protestant (omitted)		
Pentecostal	0.070	0.185
Evangelical protestant	0.065	0.129
Black protestant	-0.648	0.337
Non-traditional fundamentalist	-0.118	0.320
Catholic	-0.282*	0.133
Jewish	-0.352	0.283
Christian, non-denominational	-0.319	0.174
Other denomination	-0.020	0.332
Atheist-agnostic	-0.436*	0.208
Affiliation not listed	-0.265	0.270
Religiously unaffiliated (i.e., none)	-0.281	0.154
DKPNS	-0.237	0.166
Religiosity		
Not at all religious (omitted)		
Not very religious	-0.118	0.145
Somewhat religious	-0.074	0.153

Very religious	0.229	0.181
DKPNS	0.077	0.207
Religious attendance		
Never (omitted)		
Once a year or less	0.246*	0.122
A few times a year	-0.053	0.124
Once or twice a month	0.034	0.165
Once a week	0.399**	0.146
More than once a week	0.255	0.178
DKPNS	0.175	0.355
Intercept	2.541***	0.580
sd(intercept)	1.323	
sd(residuals)	1.943	
Vignette dummies	Yes	
Vignette dimensions	Yes	
Observations	16562	
Individuals	1747	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note: b = unstandardized slopes, SE = robust standard errors.

Table S14. Two-Level Hierarchical Linear Model of the Norm to Marry, Cross-Level Interactions

	Model 1	
	<i>b</i>	<i>SE</i>
<i>Vignette dimensions</i>		
Mike's education		
No HS diploma (omitted)		
HS diploma	0.424	0.350
4-year college degree	0.335	0.383
Mike's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	1.130**	0.394
Full-time job, \$50,000 a year	0.740	0.448
Jessica's education		
No HS diploma (omitted)		
HS diploma	-0.010	0.410
4-year college degree	-0.170	0.360
Jessica's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	0.765*	0.351
Full-time job, \$50,000 a year	0.324	0.397
Mike and Jessica's assets		
Blank (omitted)		
Inherited \$5,000	0.369	0.388
Relationship quality		
Bad (omitted)		
Good	0.794	0.405
Pregnancy status		
Not pregnant (omitted)		
Pregnant	-0.550	0.352
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.179	0.156
Gender		
Female (omitted)		
Male	0.866***	0.142
ln(household income per capita)	-0.128	0.073
<i>Cross-level interactions</i>		
White × Mike HS diploma	0.022	0.073
White × Mike 4-year degree	0.086	0.074

White × Mike \$20,000 a year	-0.027	0.079
White × Mike \$50,000 a year	-0.097	0.092
White × Jessica HS diploma	0.055	0.075
White × Jessica 4-year degree	-0.083	0.074
White × Jessica \$20,000 a year	-0.001	0.070
White × Jessica \$50,000 a year	-0.052	0.079
White × Inherited \$5,000	-0.043	0.061
White × Good relationship quality	0.212*	0.089
White × Pregnant	0.404***	0.083
Male × Mike HS diploma	-0.029	0.071
Male × Mike 4-year degree	-0.026	0.074
Male × Mike \$20,000 a year	-0.187*	0.078
Male × Mike \$50,000 a year	-0.224*	0.091
Male × Jessica HS diploma	0.080	0.074
Male × Jessica 4-year degree	0.110	0.073
Male × Jessica \$20,000 a year	-0.158*	0.069
Male × Jessica \$50,000 a year	-0.137	0.078
Male × Inherited \$5,000	-0.007	0.060
Male × Good relationship quality	-0.251**	0.086
Male × Pregnant	-0.075	0.083
Income × Mike HS diploma	-0.030	0.035
Income × Mike 4-year degree	-0.015	0.038
Income × Mike \$20,000 a year	0.003	0.038
Income × Mike \$50,000 a year	0.097*	0.043
Income × Jessica HS diploma	0.006	0.040
Income × Jessica 4-year degree	0.033	0.035
Income × Jessica \$20,000 a year	-0.003	0.034
Income × Jessica \$50,000 a year	0.067	0.039
Income × Inherited \$5,000	-0.026	0.028
Income × Good relationship quality	0.047	0.040
Income × Pregnant	0.108**	0.035
Intercept	3.801***	0.866
sd(intercept)	1.272	
sd(residuals)	1.636	
sd(Mike HS diploma)	0.149	
sd(Mike 4-year degree)	0.268	
sd(Mike \$20,000 a year)	0.250	
sd(Mike \$50,000 a year)	0.779	
sd(Jessica HS diploma)	0.265	
sd(Jessica 4-year degree)	0.119	
sd(Jessica \$20,000 a year)	0.000	
sd(Jessica \$50,000 a year)	0.414	
sd(Inherited \$5,000)	0.277	

sd(Good relationship quality)	1.114
sd(Pregnant)	1.228
Vignette dummies	Yes
Individual-level controls	Yes
Observations	16562
Individuals	1747

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note: b = unstandardized slopes, SE = robust standard errors. Joint test of significance for cross-level interactions, $\chi^2(33) = 95.82$, $p < .001$.

Control variables included age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments.

Table S15. Two-Level Hierarchical Linear Model of the Norm to Marry,
Cross-Level Interactions

	Model 1	
	<i>b</i>	<i>SE</i>
<i>Vignette dimensions</i>		
Mike's education		
No HS diploma (omitted)		
HS diploma	0.226	0.157
4-year college degree	0.156	0.157
Mike's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	1.137***	0.152
Full-time job, \$50,000 a year	1.439***	0.176
Jessica's education		
No HS diploma (omitted)		
HS diploma	-0.198	0.172
4-year college degree	0.016	0.174
Jessica's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	0.599***	0.133
Full-time job, \$50,000 a year	1.003***	0.164
Mike and Jessica's assets		
Blank (omitted)		
Inherited \$5,000	-0.082	0.128
Relationship quality		
Bad (omitted)		
Good	1.291***	0.203
Pregnancy status		
Not pregnant (omitted)		
Pregnant	0.643***	0.172
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.149	0.154
Gender		
Female (omitted)		
Male	0.800	0.144
Education		
Class 1 - Professionals, administrators, etc.	-0.021	0.318
Class 2 - Routine non-manual employees	-0.299	0.343

Class 3 - High-grade technicians	0.311	0.666
Class 4 - Skilled manual workers	0.050	0.485
Class 5 - Manual workers (omitted)		
Class 6 - Agricultural	0.066	1.366
Class 7 - Military	0.795	0.673
Class other	-0.773	0.397
Not working	-0.671	0.366
Retired	-0.247	0.328
Disabled	-0.652	0.437

Cross-level interactions

White × Mike HS diploma	0.013	0.071
White × Mike 4-year degree	0.071	0.073
White × Mike \$20,000 a year	-0.030	0.079
White × Mike \$50,000 a year	-0.075	0.091
White × Jessica HS diploma	0.058	0.074
White × Jessica 4-year degree	-0.065	0.073
White × Jessica \$20,000 a year	-0.005	0.069
White × Jessica \$50,000 a year	-0.034	0.078
White × Inherited \$5,000	-0.044	0.060
White × Good relationship quality	0.248**	0.088
White × Pregnant	0.451***	0.082
Male × Mike HS diploma	-0.041	0.073
Male × Mike 4-year degree	-0.052	0.076
Male × Mike \$20,000 a year	-0.180*	0.081
Male × Mike \$50,000 a year	-0.185*	0.093
Male × Jessica HS diploma	0.115	0.076
Male × Jessica 4-year degree	0.128	0.076
Male × Jessica \$20,000 a year	-0.090	0.070
Male × Jessica \$50,000 a year	-0.112	0.080
Male × Inherited \$5,000	0.024	0.061
Male × Good relationship quality	-0.236**	0.089
Male × Pregnant	-0.089	0.084
Class 1 × Mike HS diploma	-0.121	0.155
Class 1 × Mike 4-year degree	0.068	0.157
Class 2 × Mike HS diploma	-0.151	0.176
Class 2 × Mike 4-year degree	-0.115	0.173
Class 3 × Mike HS diploma	-0.367	0.279
Class 3 × Mike 4-year degree	-0.203	0.292
Class 4 × Mike HS diploma	-0.190	0.281
Class 4 × Mike 4-year degree	0.234	0.265
Class 6 × Mike HS diploma	-0.335	0.381
Class 6 × Mike 4-year degree	0.467	0.310
Class 7 × Mike HS diploma	0.774	0.455

Class 7 × Mike 4-year degree	0.902	0.533
Class other × Mike HS diploma	-0.002	0.191
Class other × Mike 4-year degree	0.193	0.198
Not working × Mike HS diploma	-0.021	0.188
Not working × Mike 4-year degree	0.137	0.192
Retired × Mike HS diploma	-0.130	0.161
Retired × Mike 4-year degree	0.023	0.164
Disabled × Mike HS diploma	-0.015	0.207
Disabled × Mike 4-year degree	-0.025	0.211
Class 1 × Mike \$20,000 a year	-0.008	0.155
Class 1 × Mike \$50,000 a year	0.222	0.178
Class 2 × Mike \$20,000 a year	0.062	0.174
Class 2 × Mike \$50,000 a year	0.330	0.201
Class 3 × Mike \$20,000 a year	0.161	0.297
Class 3 × Mike \$50,000 a year	0.367	0.366
Class 4 × Mike \$20,000 a year	-0.299	0.263
Class 4 × Mike \$50,000 a year	-0.104	0.325
Class 6 × Mike \$20,000 a year	-0.014	0.478
Class 6 × Mike \$50,000 a year	0.702	0.851
Class 7 × Mike \$20,000 a year	-1.105**	0.366
Class 7 × Mike \$50,000 a year	-1.050**	0.426
Class other × Mike \$20,000 a year	0.072	0.200
Class other × Mike \$50,000 a year	0.279	0.230
Not working × Mike \$20,000 a year	-0.048	0.194
Not working × Mike \$50,000 a year	0.223	0.221
Retired × Mike \$20,000 a year	0.141	0.157
Retired × Mike \$50,000 a year	0.479*	0.185
Disabled × Mike \$20,000 a year	-0.036	0.241
Disabled × Mike \$50,000 a year	-0.086	0.257
Class 1 × Jessica HS diploma	0.251	0.168
Class 1 × Jessica 4-year degree	0.097	0.172
Class 2 × Jessica HS diploma	0.188	0.191
Class 2 × Jessica 4-year degree	0.117	0.188
Class 3 × Jessica HS diploma	0.173	0.348
Class 3 × Jessica 4-year degree	0.205	0.377
Class 4 × Jessica HS diploma	0.151	0.258
Class 4 × Jessica 4-year degree	0.088	0.264
Class 6 × Jessica HS diploma	0.351	0.659
Class 6 × Jessica 4-year degree	1.278*	0.579
Class 7 × Jessica HS diploma	-0.197	0.405
Class 7 × Jessica 4-year degree	0.349	0.410
Class other × Jessica HS diploma	0.191	0.207
Class other × Jessica 4-year degree	0.214	0.208

Not working × Jessica HS diploma	0.576**	0.201
Not working × Jessica 4-year degree	0.382	0.208
Retired × Jessica HS diploma	0.131	0.171
Retired × Jessica 4-year degree	0.063	0.177
Disabled × Jessica HS diploma	0.559*	0.219
Disabled × Jessica 4-year degree	0.128	0.222
Class 1 × Jessica \$20,000 a year	0.058	0.137
Class 1 × Jessica \$50,000 a year	-0.100	0.166
Class 2 × Jessica \$20,000 a year	0.443**	0.158
Class 2 × Jessica \$50,000 a year	0.214	0.186
Class 3 × Jessica \$20,000 a year	0.080	0.217
Class 3 × Jessica \$50,000 a year	-0.171	0.304
Class 4 × Jessica \$20,000 a year	-0.125	0.230
Class 4 × Jessica \$50,000 a year	0.151	0.292
Class 6 × Jessica \$20,000 a year	0.320	0.387
Class 6 × Jessica \$50,000 a year	-0.337	0.230
Class 7 × Jessica \$20,000 a year	-1.070***	0.303
Class 7 × Jessica \$50,000 a year	-0.573	0.231
Class other × Jessica \$20,000 a year	0.035	0.184
Class other × Jessica \$50,000 a year	-0.073	0.205
Not working × Jessica \$20,000 a year	0.070	0.177
Not working × Jessica \$50,000 a year	-0.207	0.204
Retired × Jessica \$20,000 a year	0.050	0.140
Retired × Jessica \$50,000 a year	0.003	0.172
Disabled × Jessica \$20,000 a year	0.139	0.192
Disabled × Jessica \$50,000 a year	0.084	0.213
Class 1 × Inherited \$5,000	0.089	0.125
Class 2 × Inherited \$5,000	0.276*	0.140
Class 3 × Inherited \$5,000	0.216	0.193
Class 4 × Inherited \$5,000	0.041	0.211
Class 6 × Inherited \$5,000	0.160	0.675
Class 7 × Inherited \$5,000	-0.262	0.239
Class other × Inherited \$5,000	0.377*	0.166
Not working × Inherited \$5,000	0.209	0.152
Retired × Inherited \$5,000	0.142	0.133
Disabled × Inherited \$5,000	0.510**	0.182
Class 1 × Good relationship quality	-0.136	0.199
Class 2 × Good relationship quality	0.065	0.220
Class 3 × Good relationship quality	-0.013	0.405
Class 4 × Good relationship quality	-0.076	0.341
Class 6 × Good relationship quality	-1.360	0.765
Class 7 × Good relationship quality	-0.530	0.311
Class other × Good relationship quality	0.104	0.253

Not working × Good relationship quality	-0.022	0.229
Retired × Good relationship quality	-0.041	0.203
Disabled × Good relationship quality	0.096	0.276
Class 1 × Pregnant	-0.239	0.174
Class 2 × Pregnant	-0.393*	0.196
Class 3 × Pregnant	-0.301	0.312
Class 4 × Pregnant	-0.084	0.285
Class 6 × Pregnant	0.171	0.870
Class 7 × Pregnant	0.236	0.543
Class other × Pregnant	-0.241	0.205
Not working × Pregnant	-0.090	0.207
Retired × Pregnant	0.186	0.181
Disabled × Pregnant	-0.048	0.233
Intercept	3.379	0.676
sd(intercept)	1.274	
sd(residuals)	1.633	
sd(Mike HS diploma)	0.126	
sd(Mike 4-year degree)	0.264	
sd(Mike \$20,000 a year)	0.246	
sd(Mike \$50,000 a year)	0.767	
sd(Jessica HS diploma)	0.240	
sd(Jessica 4-year degree)	0.123	
sd(Jessica \$20,000 a year)	0.000	
sd(Jessica \$50,000 a year)	0.417	
sd(Inherited \$5,000)	0.266	
sd(Good relationship quality)	1.107	
sd(Pregnant)	1.217	
Vignette dummies	Yes	
Individual-level controls	Yes	
Observations	16562	
Individuals	1747	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note: b = unstandardized slopes, SE = robust standard errors. Joint test of significance for cross-level interactions, $\chi^2(144) = 14288.52$ $p < .001$. Joint tests of significance for cross-level interactions between occupation and vignette dimensions, $\chi^2(122) = 1767.01$, $p < .001$. Control variables included age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments.

Table S16. Model Comparisons of Higher-Order Interactions between Vignette Dimensions

	BIC	Wald χ^2 test
Model 1: main effects	73393	
Model 2: two-way interaction effects	73710	$\chi^2(51) = 180.61, p < .001$
Model 3: three-way interaction effects	74814	$\chi^2(129) = 151.97, p > .05$
Model 4: four-way interaction effects	76442	$\chi^2(188) = 201.98, p > .10$
Model 5: five-way interaction effects	77941	$\chi^2(168) = 162.41, p > .10$
Model 6: six-way interaction effects		Did not converge
Model 7: seven-way interaction effects		Did not converge

Note : model 1 estimated from Table 3 (model 1). All remaining models are nested models.

Table S17. Two-Level Hierarchical Linear Models of the Norm to Marry, Interaction Effects of Respondents' Race, Gender, and SES

	Model 1		Model 2		Model 3		Model 4	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
<i>Individual-level variables</i>								
Race								
Black (omitted)								
White	0.311*	0.155	0.260	0.184	0.163	0.667	-0.358	0.900
Gender								
Female (omitted)								
Male	0.622***	0.147	0.570	0.180	0.193	0.651	-0.247	0.881
Education								
HS diploma (omitted)								
Some college	-0.243	0.164	-0.274	0.192				
Bachelor's degree or higher	-0.077	0.158	-0.120	0.181				
ln(household income per capita)					-0.115	0.059	-0.134*	0.066
<i>Individual-level interactions</i>								
White × male	-0.122	0.143	-0.020	0.251	-0.145	0.148	0.985	1.351
White × some college	0.348*	0.176	0.409	0.251				
White × Bachelor's degree	0.055	0.177	0.143	0.246				
Male × some college	0.099	0.177	0.162	0.262				
Male × Bachelor's degree	-0.257	0.176	-0.168	0.254				
White × male × some college			-0.123	0.351				
White × male × Bachelor's degree			-0.175	0.353				
White × ln(household income per capita)					0.031	0.065	0.083	0.089
Male × ln(household income per capita)					0.038	0.065	0.083	0.089
White × male × ln(household income per capita)							-0.111	0.133
Intercept	1.762***	0.430	1.791***	0.431	2.772***	0.701	2.966***	0.750
sd(intercept)	1.326		1.326		1.329		1.329	
sd(residuals)	1.943		1.943		1.943		1.943	
Vignette dummies	Yes		Yes		Yes		Yes	
Vignette dimensions	Yes		Yes		Yes		Yes	
Individual-level controls	Yes		Yes		Yes		Yes	
Observations	16562		16562		16562		16562	
Individuals	1747		1747		1747		1747	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note: b = unstandardized slopes, SE = robust standard errors. Joint tests of significance for interaction effects, model 1: $\chi^2(5) = 9.44$, $p = 0.0927$; model 2: $\chi^2(7) = 9.78$, $p = 0.2012$; model 3: $\chi^2(3) = 1.24$, $p = 0.7432$; model 4: $\chi^2(4) = 1.81$, $p = 0.7701$. Control variables included age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments.

Table S18. Model Comparisons of Higher-Order Interactions of Race, Gender, SES, and each Vignette Dimension

	BIC	Wald χ^2 test
Model 1: main effects + random slopes	71736	
<i>Respondent's Race, Gender, and Education</i>		
Model 2: two-way interaction effects	72045	$\chi^2(44) = 110.09, p < .001$
Model 3: three-way interaction effects	72557	$\chi^2(55) = 57.56, p > .10$
Model 4: four-way interaction effects	72765	$\chi^2(22) = 22.21, p > .10$
<i>Respondent's Race, Gender, and Income</i>		
Model 5: two-way interaction effects	71945	$\chi^2(33) = 95.82, p < .001$
Model 6: three-way interaction effects	72248	$\chi^2(33) = 48.08, p < .05$
Model 7: four-way interaction effects	72356	$\chi^2(11) = 7.73, p > .10$
<i>Respondent's Race, Gender, and Occupation</i>		
Model 8: two-way interaction effects	72793	$\chi^2(144) = 14288.52, p < .001$
Model 9: three-way interaction effects		Did not converge
Model 10: four-way interaction effects		Did not converge

Note: model 1 estimated from Table 5 (model 1) but with random slopes for all vignette dimensions. All remaining models are nested models. Two-way interactions are between each vignette dimension and a sociodemographic variable (i.e., dimension $\times$ race, dimension $\times$ gender, and dimension $\times$ SES). Three-way interactions are between each vignette dimension and two sociodemographic variables (i.e., dimension $\times$ race $\times$ gender, dimension $\times$ race $\times$ SES, and dimension $\times$ gender $\times$ SES). Four-way interactions are between each vignette dimension and the three sociodemographic variables (i.e., dimension $\times$ race $\times$ gender $\times$ SES).

Table S19. Two-Level Ordered Logit Models of the Norm to Marry, Effects of Vignette Dimensions

	Model 1	
	Log-Odds	SE
<i>Vignette dimensions</i>		
Mike's education		
No HS diploma (omitted)		
HS diploma	0.099**	0.036
4-year college degree	0.169***	0.037
Mike's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	0.992***	0.036
Full-time job, \$50,000 a year	1.473***	0.037
Jessica's education		
No HS diploma (omitted)		
HS diploma	0.107**	0.037
4-year college degree	0.171***	0.036
Jessica's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	0.641***	0.036
Full-time job, \$50,000 a year	0.883***	0.036
Mike and Jessica's assets		
Blank (omitted)		
Inherited \$5,000	0.067*	0.030
Relationship quality		
Bad (omitted)		
Good	1.172***	0.031
Pregnancy status		
Not pregnant (omitted)		
Pregnant	0.680***	0.030
Cut-point 1	-0.708***	0.097
Cut-point 2	0.782***	0.091
Cut-point 3	1.139***	0.090
Cut-point 4	1.268***	0.089
Cut-point 5	3.354***	0.089
Cut-point 6	3.406***	0.089
Cut-point 7	3.725***	0.090
Cut-point 8	5.576***	0.105
sd(intercept)	1.638	
Vignette dummies	Yes	
Individual-level variables and controls	No	
Observations	16804	
Individuals	1777	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note : SE = standard errors. A model with random slopes failed to converge.

Table S20. Two-Level Ordered Logit Model of the Norm to Marry,
Effects of Individual-Level Variables

	Model 1	
	Log-Odds	SE
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.451***	0.101
Gender		
Female (omitted)		
Male	0.550***	0.085
Education		
HS diploma (omitted)		
Some college	-0.014	0.104
Bachelor's degree or higher	-0.136	0.114
ln(household income per capita)	-0.066	0.047
Occupation		
Class 1 - Professionals, administrators, etc.	-0.167	0.186
Class 2 - Routine non-manual employees	-0.005	0.193
Class 3 - High-grade technicians	0.473	0.371
Class 4 - Skilled manual workers	-0.109	0.271
Class 5 - Manual workers (omitted)		
Class 6 - Agricultural	-0.093	0.650
Class 7 - Military	-0.247	0.671
Class other	-0.496*	0.207
Not working	-0.302	0.204
Retired	-0.069	0.202
Disabled	-0.189	0.234
Cut-point 1	-1.647*	0.682
Cut-point 2	-0.153	0.680
Cut-point 3	0.202	0.680
Cut-point 4	0.327	0.680
Cut-point 5	2.406***	0.680
Cut-point 6	2.459***	0.679
Cut-point 7	2.781***	0.679
Cut-point 8	4.622***	0.680
sd(intercept)	1.516	
Vignette dummies	Yes	
Vignette dimensions	Yes	
Individual-level controls	Yes	
Observations	16562	
Individuals	1747	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note: SE = robust standard errors. Control variables included age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments.

Table S21. Two-Level Ordered Logit Model of the Norm to Marry,
Higher Level Moderation of Lower Level Effects

	Model 1	
	Log-Odds	SE
<i>Vignette dimensions</i>		
Mike's education		
No HS diploma (omitted)		
HS diploma	0.112	0.083
4-year college degree	0.115	0.088
Mike's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	1.103***	0.093
Full-time job, \$50,000 a year	1.558***	0.112
Jessica's education		
No HS diploma (omitted)		
HS diploma	0.074	0.094
4-year college degree	0.053	0.087
Jessica's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	0.761***	0.081
Full-time job, \$50,000 a year	1.050***	0.089
Mike and Jessica's assets		
Blank (omitted)		
Inherited \$5,000	0.139	0.071
Relationship quality		
Bad (omitted)		
Good	0.987***	0.095
Pregnancy status		
Not pregnant (omitted)		
Pregnant	0.446***	0.088
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.226	0.171
Gender		
Female (omitted)		
Male	0.966***	0.162
Education		
HS diploma (omitted)		
Some college	-0.235	0.197
Bachelor's degree or higher	-0.510*	0.202

Cross-level interactions

White × Mike HS diploma	-0.021	0.073
White × Mike 4-year degree	0.074	0.075
White × Mike \$20,000 a year	-0.068	0.081
White × Mike \$50,000 a year	-0.096	0.095
White × Jessica HS diploma	0.072	0.077
White × Jessica 4-year degree	-0.039	0.076
White × Jessica \$20,000 a year	-0.037	0.071
White × Jessica \$50,000 a year	-0.102	0.081
White × Inherited \$5,000	-0.011	0.062
White × Good relationship quality	0.195*	0.086
White × Pregnant	0.424***	0.082
Male × Mike HS diploma	-0.041	0.073
Male × Mike 4-year degree	-0.019	0.074
	-	
Male × Mike \$20,000 a year	0.234***	0.081
Male × Mike \$50,000 a year	-0.238*	0.095
Male × Jessica HS diploma	0.107	0.077
Male × Jessica 4-year degree	0.129	0.075
Male × Jessica \$20,000 a year	-0.195**	0.070
Male × Jessica \$50,000 a year	-0.209**	0.080
Male × Inherited \$5,000	-0.040	0.062
Male × Good relationship quality	-0.231**	0.086
Male × Pregnant	-0.074	0.082
Some college × Mike HS diploma	0.025	0.089
Some college × Mike 4-year degree	0.010	0.093
Bachelor's × Mike HS diploma	0.058	0.088
Bachelor's × Mike 4-year degree	0.082	0.092
Some college × Mike \$20,000 a year	0.076	0.100
Some college × Mike \$50,000 a year	0.090	0.118
Bachelor's × Mike \$20,000 a year	0.090	0.100
Bachelor's × Mike \$50,000 a year	0.224	0.116
Some college × Jessica HS diploma	-0.090	0.095
Some college × Jessica 4-year degree	0.174	0.095
Bachelor's × Jessica HS diploma	-0.067	0.093
Bachelor's × Jessica 4-year degree	0.055	0.090
Some college × Jessica \$20,000 a year	-0.022	0.087
Some college × Jessica \$50,000 a year	0.014	0.099
Bachelor's × Jessica \$20,000 a year	0.032	0.086
Bachelor's × Jessica \$50,000 a year	-0.006	0.097
Some college × Inherited \$5,000	-0.104	0.076
Bachelor's × Inherited \$5,000	-0.032	0.074
Some college × Good relationship quality	0.350**	0.105

Bachelor's × Good relationship quality	0.294**	0.102
Some college × Pregnant	0.011	0.099
Bachelor's × Pregnant	0.166	0.100
Cut-point 1	-1.754**	0.700
Cut-point 2	-0.246	0.698
Cut-point 3	0.112	0.698
Cut-point 4	0.238	0.698
Cut-point 5	2.331***	0.698
Cut-point 6	2.384***	0.698
Cut-point 7	2.709***	0.697
Cut-point 8	4.558***	0.698
sd(intercept)	1.529	
Vignette dummies	Yes	
Individual-level controls	Yes	
Observations	16562	
Individuals	1747	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note: SE = robust standard errors. Joint test of significance for cross-level interactions, $\chi^2(44) = 101.80$, $p < .001$. Control variables included age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments. Model failed to converge with all random slopes freely estimated.

Table S22. Two-Level Multinomial Logit Model of the Norm to Marry, Effects of Vignette Dimensions

	Should not vs. Neutral		Should vs. Neutral		Don't know vs. Neutral	
	Log-Odds	SE	Log-Odds	SE	Log-Odds	SE
<i>Vignette dimensions</i>						
Mike's education						
No HS diploma (omitted)						
HS diploma	-0.150*	0.059	0.043	0.059	-0.239	0.127
4-year college degree	-0.267***	0.061	0.081	0.060	-0.185	0.126
Mike's earnings and employment						
Unemployed 2 years (omitted)						
Full-time job, \$20,000 a year	-1.139***	0.060	0.627***	0.066	-0.362**	0.118
Full-time job, \$50,000 a year	-1.504***	0.069	1.066***	0.068	-0.317*	0.124
Jessica's education						
No HS diploma (omitted)						
HS diploma	-0.177**	0.061	-0.030	0.062	-0.181	0.132
4-year college degree	-0.205**	0.061	0.047	0.060	-0.125	0.121
Jessica's earnings and employment						
Unemployed 2 years (omitted)						
Full-time job, \$20,000 a year	-0.649***	0.057	0.380***	0.061	0.107	0.118
Full-time job, \$50,000 a year	-0.899***	0.062	0.610***	0.063	-0.010	0.122
Mike and Jessica's assets						
Blank (omitted)						
Inherited \$5,000	-0.028	0.050	0.131*	0.051	0.112	0.103
Relationship quality						
Bad (omitted)						
Good	-1.124***	0.063	1.097***	0.063	-0.327**	0.113
Pregnancy status						
Not pregnant (omitted)						
Pregnant	-0.248***	0.058	0.961***	0.068	0.245*	0.110
Intercept	1.922***	0.126	-2.339***	0.146	-5.303***	0.384
sd(intercept)	2.049		2.202		5.044	
Vignette dummies			Yes			
Individual-level variables and controls			No			
Observations			18230			
Individuals			1823			

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note : Log-Odds = relative log-odds; SE = standard errors. A model with random slopes failed to converge.

Table S23. Two-Level Multinomial Logit Model of the Norm to Marry, Effects of Individual-Level Variables

	Should not vs. Neutral		Should vs. Neutral		Don't know vs. Neutral	
	Log-Odds	SE	Log-Odds	SE	Log-Odds	SE
<i>Individual-level variables</i>						
Race						
Black (omitted)						
White	-0.195	0.118	0.235	0.123	-0.525***	0.147
Gender						
Female (omitted)						
Male	-0.611***	0.117	0.213	0.124	0.191	0.149
Education						
HS diploma (omitted)						
Some college	0.148	0.145	0.136	0.149	0.030	0.171
Bachelor's degree or higher	0.334*	0.160	0.219	0.170	-0.439*	0.211
ln(household income per capita)	0.074	0.061	-0.107	0.063	-0.285***	0.072
Occupation						
Class 1 - Professionals, administrators, etc.	0.251	0.252	0.044	0.285	-0.191	0.293
Class 2 - Routine non-manual employees	0.239	0.267	0.182	0.299	-0.169	0.310
Class 3 - High-grade technicians	-0.270	0.474	0.156	0.545	0.234	0.552
Class 4 - Skilled manual workers	0.475	0.384	0.257	0.437	-0.820	0.498
Class 5 - Manual workers (omitted)						
Class 6 - Agricultural	-0.279	1.123	0.056	0.986	2.541*	1.171
Class 7 - Military	-0.437	0.954	-0.472	0.872	-2.898	2.233
Class other	0.557	0.306	0.018	0.330	0.130	0.340
Not working	0.268	0.284	0.103	0.306	0.707*	0.316
Retired	0.765*	0.247	0.780**	0.275	0.058	0.279
Disabled	-0.039	.339	-0.096	0.356	0.089	0.381
Intercept	1.073	0.625	-1.828**	0.669	-2.012*	0.782
sd(intercept)	1.198		2.164		4.832	
Vignette dummies			Yes			
Vignette dimensions			Yes			
Individual-level controls			No			
Observations			18170			
Individuals			1817			

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note : Log-Odds = relative log-odds; SE = standard errors. A model with individual-level control variables failed to converge.

Table S24. Consensus and Conditionality of the Norm to Marry, Two-Level Hierarchical Linear Models without Nonexistent Norm Followers

	Model 1		Model 2	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
<i>Vignette dimensions</i>				
Mike's education				
No HS diploma (omitted)				
HS diploma	0.128**	0.040	0.126**	0.038
4-year college degree	0.214***	0.041	0.228***	0.039
Mike's earnings and employment				
Unemployed 2 years (omitted)				
Full-time job, \$20,000 a year	1.148***	0.043	1.136***	0.041
Full-time job, \$50,000 a year	1.696***	0.049	1.690***	0.048
Jessica's education				
No HS diploma (omitted)				
HS diploma	0.109*	0.043	0.124**	0.040
4-year college degree	0.189***	0.041	0.191***	0.039
Jessica's earnings and employment				
Unemployed 2 years (omitted)				
Full-time job, \$20,000 a year	0.697***	0.038	0.699***	0.036
Full-time job, \$50,000 a year	0.973***	0.043	0.984***	0.041
Mike and Jessica's assets				
Blank (omitted)				
Inherited \$5,000	0.096**	0.034	0.084**	0.032
Relationship quality				
Bad (omitted)				
Good	1.370***	0.046	1.356***	0.046
Pregnancy status				
Not pregnant (omitted)				
Pregnant	0.759***	0.045	0.766***	0.044
Intercept	1.353***	0.092	1.357***	0.088
sd(intercept)	1.488		1.443	
sd(residuals)	1.995		1.697	
sd(Mike HS diploma)			0.174	
sd(Mike 4-year degree)			0.255	
sd(Mike \$20,000 a year)			0.221	
sd(Mike \$50,000 a year)			0.748	
sd(Jessica HS diploma)			0.251	
sd(Jessica 4-year degree)			0.130	
sd(Jessica \$20,000 a year)			0.000	
sd(Jessica \$50,000 a year)			0.412	
sd(Inherited \$5,000)			0.294	
sd(Good relationship quality)			1.136	
sd(Pregnant)			1.285	
Vignette dummies	Yes		Yes	
Individual-level variables and controls	No		No	
Observations	15476		15476	
Individuals	1632		1632	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)Note : b = unstandardized slopes, SE = robust standard errors.

Table S25. Consensus of the Norm to Marry across Subpopulations, Two-Level Hierarchical Linear Model without Nonexistent Norm Followers

	Model 1	
	<i>b</i>	<i>SE</i>
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.420***	0.097
Gender		
Female (omitted)		
Male	0.557***	0.082
Education		
HS diploma (omitted)		
Some college	0.023	0.100
Bachelor's degree or higher	-0.120	0.111
ln(household income per capita)	-0.082	0.045
Occupation		
Class 1 - Professionals, administrators, etc.	-0.158	0.182
Class 2 - Routine non-manual employees	-0.026	0.191
Class 3 - High-grade technicians	0.314	0.348
Class 4 - Skilled manual workers	-0.158	0.256
Class 5 - Manual workers (omitted)		
Class 6 - Agricultural	-0.146	0.752
Class 7 - Military	0.003	0.693
Class other	-0.498*	0.204
Not working	-0.285	0.199
Retired	-0.056	0.193
Disabled	-0.097	0.234
Intercept	2.569***	0.642
sd(intercept)	1.373	
sd(residuals)	1.995	
Vignette dummies	Yes	
Vignette dimensions	Yes	
Individual-level controls	Yes	
Observations	15273	
Individuals	1606	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note : b = unstandardized slopes, SE = robust standard errors. Control variables included age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments.

Table S26. Consensus of Conditionality of the Norm to Marry across Subpopulations, Two-Level Hierarchical Linear Model with Higher Level Moderation of Lower Level Effects without Nonexistent Norm Followers

	Model 1	
	<i>b</i>	<i>SE</i>
<i>Vignette dimensions</i>		
Mike's education		
No HS diploma (omitted)		
HS diploma	0.142	0.093
4-year college degree	0.185	0.099
Mike's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	1.231***	0.101
Full-time job, \$50,000 a year	1.753***	0.119
Jessica's education		
No HS diploma (omitted)		
HS diploma	0.097	0.106
4-year college degree	0.083	0.097
Jessica's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	0.820***	0.090
Full-time job, \$50,000 a year	1.088***	0.097
Mike and Jessica's assets		
Blank (omitted)		
Inherited \$5,000	0.162*	0.080
Relationship quality		
Bad (omitted)		
Good	1.134***	0.105
Pregnancy status		
Not pregnant (omitted)		
Pregnant	0.516***	0.097
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.033	0.163
Gender		
Female (omitted)		
Male	0.917***	0.153
Education		
HS diploma (omitted)		
Some college	-0.034	0.191

Bachelor's degree or higher	-0.471*	0.193
<i>Cross-level interactions</i>		
White × Mike HS diploma	-0.007	0.080
White × Mike 4-year degree	0.067	0.083
White × Mike \$20,000 a year	-0.015	0.086
White × Mike \$50,000 a year	-0.025	0.098
White × Jessica HS diploma	0.092	0.086
White × Jessica 4-year degree	-0.050	0.084
White × Jessica \$20,000 a year	-0.011	0.077
White × Jessica \$50,000 a year	-0.026	0.086
White × Inherited \$5,000	-0.016	0.069
White × Good relationship quality	0.289**	0.093
White × Pregnant	0.490***	0.089
Male × Mike HS diploma	-0.035	0.080
Male × Mike 4-year degree	0.006	0.083
Male × Mike \$20,000 a year	-0.206*	0.086
Male × Mike \$50,000 a year	-0.191	0.098
Male × Jessica HS diploma	0.096	0.086
Male × Jessica 4-year degree	0.138	0.084
Male × Jessica \$20,000 a year	-0.192*	0.077
Male × Jessica \$50,000 a year	-0.174*	0.086
Male × Inherited \$5,000	-0.008	0.069
Male × Good relationship quality	-0.245**	0.093
Male × Pregnant	-0.091	0.090
Some college × Mike HS diploma	0.011	0.099
Some college × Mike 4-year degree	-0.064	0.105
Bachelor's × Mike HS diploma	0.038	0.099
Bachelor's × Mike 4-year degree	0.061	0.104
Some college × Mike \$20,000 a year	0.013	0.107
Some college × Mike \$50,000 a year	-0.015	0.123
Bachelor's × Mike \$20,000 a year	0.092	0.107
Bachelor's × Mike \$50,000 a year	0.213	0.121
Some college × Jessica HS diploma	-0.095	0.106
Some college × Jessica 4-year degree	0.174	0.106
Bachelor's × Jessica HS diploma	-0.127	0.106
Bachelor's × Jessica 4-year degree	0.038	0.102
Some college × Jessica \$20,000 a year	-0.058	0.095
Some college × Jessica \$50,000 a year	-0.007	0.105
Bachelor's × Jessica \$20,000 a year	0.003	0.096
Bachelor's × Jessica \$50,000 a year	-0.014	0.106
Some college × Inherited \$5,000	-0.140	0.085
Bachelor's × Inherited \$5,000	-0.024	0.084
Some college × Good relationship quality	0.331**	0.115

Bachelor's $\times$ Good relationship quality	0.328**	0.112
Some college $\times$ Pregnant	-0.052	0.108
Bachelor's $\times$ Pregnant	0.185	0.111
Intercept	2.693***	0.660
sd(intercept)	1.374	
sd(residuals)	1.984	
Vignette dummies	Yes	
Individual-level controls	Yes	
Observations	15273	
Individuals	1606	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note: b = unstandardized slopes, SE = robust standard errors. Joint test of significance for cross-level interactions, $\chi^2(44) = 109.04$, $p < .001$. Control variables included age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments. Model failed to converge with all random slopes freely estimated.

Table S27. Consensus and Conditionality of the Norm to Marry, Two-Level Hierarchical Linear Models of Respondents who Rated All Ten Vignettes

	Model 1		Model 2	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
<i>Vignette dimensions</i>				
Mike's education				
No HS diploma (omitted)				
HS diploma	0.111**	0.041	0.112**	0.038
4-year college degree	0.189***	0.042	0.204***	0.039
Mike's earnings and employment				
Unemployed 2 years (omitted)				
Full-time job, \$20,000 a year	1.068***	0.045	1.062***	0.043
Full-time job, \$50,000 a year	1.560***	0.052	1.567***	0.051
Jessica's education				
No HS diploma (omitted)				
HS diploma	0.070	0.044	0.087*	0.041
4-year college degree	0.140**	0.043	0.143***	0.040
Jessica's earnings and employment				
Unemployed 2 years (omitted)				
Full-time job, \$20,000 a year	0.618***	0.039	0.615***	0.037
Full-time job, \$50,000 a year	0.873***	0.044	0.884***	0.042
Mike and Jessica's assets				
Blank (omitted)				
Inherited \$5,000	0.079*	0.035	0.070*	0.032
Relationship quality				
Bad (omitted)				
Good	1.269***	0.049	1.257***	0.048
Pregnancy status				
Not pregnant (omitted)				
Pregnant	0.694***	0.047	0.707***	0.046
Intercept	1.567***	0.098	1.553***	0.093
sd(intercept)	1.486		1.454	
sd(residuals)	1.941		1.616	
sd(Mike HS diploma)			0.216	
sd(Mike 4-year degree)			0.251	
sd(Mike \$20,000 a year)			0.280	
sd(Mike \$50,000 a year)			0.806	
sd(Jessica HS diploma)			0.288	
sd(Jessica 4-year degree)			0.239	
sd(Jessica \$20,000 a year)			0.000	
sd(Jessica \$50,000 a year)			0.429	
sd(Inherited \$5,000)			0.222	
sd(Good relationship quality)			1.190	
sd(Pregnant)			1.279	
Vignette dummies	Yes		Yes	
Individual-level variables and controls	No		No	
Observations	13740		13740	
Individuals	1374		1374	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)Note : b = unstandardized slopes, SE = robust standard errors.

Table S28. Consensus of the Norm to Marry across Subpopulations, Two-Level Hierarchical Linear Model of Respondents who Rated All Ten Vignettes

	Model 1	
	<i>b</i>	<i>SE</i>
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.486***	0.103
Gender		
Female (omitted)		
Male	0.531***	0.087
Education		
HS diploma (omitted)		
Some college	-0.053	0.109
Bachelor's degree or higher	-0.127	0.121
ln(household income per capita)	-0.109*	0.049
Occupation		
Class 1 - Professionals, administrators, etc.	-0.095	0.199
Class 2 - Routine non-manual employees	-0.037	0.210
Class 3 - High-grade technicians	0.402	0.367
Class 4 - Skilled manual workers	-0.350	0.264
Class 5 - Manual workers (omitted)		
Class 6 - Agricultural	0.062	0.901
Class 7 - Military	-0.156	0.702
Class other	-0.448*	0.224
Not working	-0.264	0.226
Retired	-0.040	0.217
Disabled	-0.036	0.252
Intercept	3.010***	0.728
sd(intercept)	1.376	
sd(residuals)	1.944	
Vignette dummies	Yes	
Vignette dimensions	Yes	
Individual-level controls	Yes	
Observations	13580	
Individuals	1358	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note: b = unstandardized slopes, SE = robust standard errors. Control variables included age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments.

Table S29. Consensus of Conditionality of the Norm to Marry across Subpopulations, Two-Level Hierarchical Linear Model with Higher Level Moderation of Lower Level Effects of Respondents who Rated All Ten Vignettes

	Model 1	
	<i>b</i>	<i>SE</i>
<i>Vignette dimensions</i>		
Mike's education		
No HS diploma (omitted)		
HS diploma	0.124	0.092
4-year college degree	0.176	0.094
Mike's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	1.164***	0.104
Full-time job, \$50,000 a year	1.734***	0.129
Jessica's education		
No HS diploma (omitted)		
HS diploma	0.058	0.106
4-year college degree	0.087	0.095
Jessica's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	0.685***	0.088
Full-time job, \$50,000 a year	0.975***	0.099
Mike and Jessica's assets		
Blank (omitted)		
Inherited \$5,000	0.167*	0.075
Relationship quality		
Bad (omitted)		
Good	1.050***	0.109
Pregnancy status		
Not pregnant (omitted)		
Pregnant	0.427***	0.101
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.393*	0.171
Gender		
Female (omitted)		
Male	0.851***	0.158
Education		
HS diploma (omitted)		
Some college	-0.128	0.199

Bachelor's degree or higher	-0.468*	0.204
<i>Cross-level interactions</i>		
White × Mike HS diploma	0.020	0.077
White × Mike 4-year degree	0.066	0.079
White × Mike \$20,000 a year	-0.091	0.088
White × Mike \$50,000 a year	-0.138	0.103
White × Jessica HS diploma	0.044	0.084
White × Jessica 4-year degree	-0.100	0.082
White × Jessica \$20,000 a year	-0.029	0.075
White × Jessica \$50,000 a year	-0.089	0.085
White × Inherited \$5,000	-0.066	0.065
White × Good relationship quality	0.160	0.097
White × Pregnant	0.443***	0.092
Male × Mike HS diploma	-0.063	0.077
Male × Mike 4-year degree	0.001	0.079
Male × Mike \$20,000 a year	-0.164	0.087
Male × Mike \$50,000 a year	-0.234*	0.102
Male × Jessica HS diploma	0.117	0.083
Male × Jessica 4-year degree	0.126	0.081
Male × Jessica \$20,000 a year	-0.140	0.075
Male × Jessica \$50,000 a year	-0.129	0.085
Male × Inherited \$5,000	-0.018	0.064
Male × Good relationship quality	-0.237*	0.097
Male × Pregnant	-0.041	0.092
Some college × Mike HS diploma	0.029	0.097
Some college × Mike 4-year degree	-0.067	0.100
Bachelor's × Mike HS diploma	0.006	0.094
Bachelor's × Mike 4-year degree	0.041	0.099
Some college × Mike \$20,000 a year	0.063	0.111
Some college × Mike \$50,000 a year	-0.023	0.131
Bachelor's × Mike \$20,000 a year	0.058	0.108
Bachelor's × Mike \$50,000 a year	0.118	0.128
Some college × Jessica HS diploma	-0.092	0.105
Some college × Jessica 4-year degree	0.124	0.105
Bachelor's × Jessica HS diploma	-0.057	0.100
Bachelor's × Jessica 4-year degree	0.016	0.098
Some college × Jessica \$20,000 a year	-0.010	0.095
Some college × Jessica \$50,000 a year	0.024	0.107
Bachelor's × Jessica \$20,000 a year	0.050	0.092
Bachelor's × Jessica \$50,000 a year	0.035	0.103
Some college × Inherited \$5,000	-0.128	0.081
Bachelor's × Inherited \$5,000	-0.029	0.078
Some college × Good relationship quality	0.380**	0.121

Bachelor's × Good relationship quality	0.350**	0.116
Some college × Pregnant	-0.055	0.113
Bachelor's × Pregnant	0.254*	0.115
Intercept	3.747***	0.782
sd(intercept)	1.324	
sd(residuals)	1.612	
sd(Mike HS diploma)	0.236	
sd(Mike 4-year degree)	0.260	
sd(Mike \$20,000 a year)	0.291	
sd(Mike \$50,000 a year)	0.820	
sd(Jessica HS diploma)	0.305	
sd(Jessica 4-year degree)	0.213	
sd(Jessica \$20,000 a year)	0.000	
sd(Jessica \$50,000 a year)	0.443	
sd(Inherited \$5,000)	0.190	
sd(Good relationship quality)	1.169	
sd(Pregnant)	1.261	
Vignette dummies	Yes	
Individual-level controls	Yes	
Observations	13580	
Individuals	1358	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note: b = unstandardized slopes, SE = robust standard errors. Joint test of significance for cross-level interactions, $\chi^2(44) = 89.98$, $p < .001$. Control variables included age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments.

Table S30. Polarity and Conditionality of the Norm to Marry with Survey Weights

Norm to Marry	Number	Weighted % of Sample
<i>Polarity</i>		
Nonexistent ($R = 4$)	145	8.82
Prescriptive ($R > 4, r \geq 4$)	268	14.92
Proscriptive ($R < 4, r \leq 4$)	248	13.45
Bipolar ($0 < R < 8, 0 < r < 8$)	1116	62.82
Total	1777	100
<i>Conditionality</i>		
Nonexistent ($R = 4$)	145	12.02
Unconditional ($R = r, r \neq 4$)	88	4.69
Conditional ($VAR(r) \neq 0$)	1544	83.29
Total	1777	100
	Number	Weighted Intensity
<i>Intensity</i>		
Unconditional proscriptive	33	3.25
Unconditional prescriptive	55	3.28
Conditional proscriptive	215	1.90
Conditional prescriptive	213	1.90
Bipolar	1116	2.34

Table S31. Consensus and Conditionality of the Norm to Marry, Two-Level Hierarchical Linear Models with Survey Weights

	Model 1	
	<i>b</i>	<i>SE</i>
<i>Vignette dimensions</i>		
Mike's education		
No HS diploma (omitted)		
HS diploma	0.096*	0.044
4-year college degree	0.208***	0.048
Mike's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	1.031***	0.050
Full-time job, \$50,000 a year	1.524***	0.058
Jessica's education		
No HS diploma (omitted)		
HS diploma	0.138**	0.048
4-year college degree	0.155**	0.047
Jessica's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	0.618***	0.046
Full-time job, \$50,000 a year	0.841***	0.052
Mike and Jessica's assets		
Blank (omitted)		
Inherited \$5,000	0.088*	0.038
Relationship quality		
Bad (omitted)		
Good	1.362***	0.057
Pregnancy status		
Not pregnant (omitted)		
Pregnant	0.803***	0.055
Intercept	1.548***	0.106
sd(intercept)	1.381	
sd(residuals)	1.893	
Vignette dummies	Yes	
Individual-level variables and controls	No	
Observations	16804	
Individuals	1777	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$ (two-tailed)

Note: b = unstandardized slopes, SE = robust standard errors. Model failed to converge with all random slopes freely estimated.

Table S32. Consensus of the Norm to Marry across Subpopulations, Two-Level Hierarchical Linear Model with Survey Weights

	Model 1	
	<i>b</i>	<i>SE</i>
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.465***	0.100
Gender		
Female (omitted)		
Male	0.493***	0.091
Education		
HS diploma (omitted)		
Some college	0.011	0.107
Bachelor's degree or higher	-0.171	0.127
ln(household income per capita)	-0.035	0.050
Occupation		
Class 1 - Professionals, administrators, etc.	0.026	0.178
Class 2 - Routine non-manual employees	0.160	0.191
Class 3 - High-grade technicians	0.382	0.338
Class 4 - Skilled manual workers	0.020	0.287
Class 5 - Manual workers (omitted)		
Class 6 - Agricultural	0.307	0.812
Class 7 - Military	-0.666	0.600
Class other	-0.172	0.227
Not working	0.018	0.201
Retired	0.173	0.203
Disabled	0.005	0.231
Intercept	1.483*	0.699
sd(intercept)	1.255	
sd(residuals)	1.895	
Vignette dummies	Yes	
Vignette dimensions	Yes	
Individual-level controls	Yes	
Observations	16562	
Individuals	1747	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note : b = unstandardized slopes, SE = robust standard errors. Control variables included age, marital status, cohabitation status, housing type, ownership of living quarters, MSA status, region, religious affiliation, religiosity, religious attendance, a short-form GSS vocabulary test, and marriage judgments.

Table S33. Consensus of Conditionality of the Norm to Marry across Subpopulations, Two-Level Hierarchical Linear Model with Higher Level Moderation of Lower Level Effects with Survey Weights

	Model 1	
	<i>b</i>	<i>SE</i>
<i>Vignette dimensions</i>		
Mike's education		
No HS diploma (omitted)		
HS diploma	0.119	0.098
4-year college degree	0.256*	0.102
Mike's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	1.185***	0.108
Full-time job, \$50,000 a year	1.635***	0.123
Jessica's education		
No HS diploma (omitted)		
HS diploma	0.094	0.105
4-year college degree	0.083	0.102
Jessica's earnings and employment		
Unemployed 2 years (omitted)		
Full-time job, \$20,000 a year	0.733***	0.097
Full-time job, \$50,000 a year	0.959***	0.109
Mike and Jessica's assets		
Blank (omitted)		
Inherited \$5,000	0.177*	0.084
Relationship quality		
Bad (omitted)		
Good	1.104***	0.119
Pregnancy status		
Not pregnant (omitted)		
Pregnant	0.441***	0.106
<i>Individual-level variables</i>		
Race		
Black (omitted)		
White	0.140	0.178
Gender		
Female (omitted)		
Male	0.829***	0.185
Education		
HS diploma (omitted)		
Some college	0.090	0.222
Bachelor's degree or higher	-0.285	0.229

Cross-level interactions

White × Mike HS diploma	-0.048	0.083
White × Mike 4-year degree	-0.001	0.087
White × Mike \$20,000 a year	-0.005	0.091
White × Mike \$50,000 a year	0.027	0.101
White × Jessica HS diploma	0.065	0.089
White × Jessica 4-year degree	-0.040	0.088
White × Jessica \$20,000 a year	0.008	0.078
White × Jessica \$50,000 a year	-0.034	0.090
White × Inherited \$5,000	-0.003	0.070
White × Good relationship quality	0.236*	0.099
White × Pregnant	0.437***	0.088
Male × Mike HS diploma	0.059	0.090
Male × Mike 4-year degree	-0.075	0.097
Male × Mike \$20,000 a year	-0.185	0.100
Male × Mike \$50,000 a year	-0.187	0.116
Male × Jessica HS diploma	0.063	0.098
Male × Jessica 4-year degree	0.112	0.096
Male × Jessica \$20,000 a year	-0.209*	0.093
Male × Jessica \$50,000 a year	-0.133	0.105
Male × Inherited \$5,000	-0.045	0.077
Male × Good relationship quality	-0.232*	0.111
Male × Pregnant	-0.029	0.111
Some college × Mike HS diploma	-0.053	0.109
Some college × Mike 4-year degree	-0.124	0.120
Bachelor's × Mike HS diploma	0.050	0.107
Bachelor's × Mike 4-year degree	0.110	0.119
Some college × Mike \$20,000 a year	-0.055	0.127
Some college × Mike \$50,000 a year	-0.053	0.143
Bachelor's × Mike \$20,000 a year	-0.099	0.121
Bachelor's × Mike \$50,000 a year	-0.050	0.143
Some college × Jessica HS diploma	-0.051	0.116
Some college × Jessica 4-year degree	0.098	0.120
Bachelor's × Jessica HS diploma	-0.098	0.113
Bachelor's × Jessica 4-year degree	0.061	0.121
Some college × Jessica \$20,000 a year	-0.006	0.115
Some college × Jessica \$50,000 a year	0.055	0.128
Bachelor's × Jessica \$20,000 a year	-0.041	0.112
Bachelor's × Jessica \$50,000 a year	-0.095	0.126
Some college × Inherited \$5,000	-0.118*	0.092
Bachelor's × Inherited \$5,000	-0.013	0.093
Some college × Good relationship quality	0.258	0.132
Bachelor's × Good relationship quality	0.252	0.136

Some college $\times$ Pregnant	-0.105	0.126
Bachelor's $\times$ Pregnant	0.093	0.139
Intercept	1.616*	0.717
sd(intercept)	1.256	
sd(residuals)	1.888	
Vignette dummies	Yes	
Individual-level controls	Yes	
Observations	16562	
Individuals	1747	

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)

Note: b = unstandardized slopes, SE = robust standard errors. Joint test of significance for cross-level interactions, $\chi^2(44) = 75.03$, $p < .01$. Model failed to converge with all random slopes freely estimated.

Figure S1. Cross-Level Interaction Effects between Gender and Mike's Earnings and Employment (Panel A), Gender and Jessica's Earnings and Employment (Panel B), and Gender and Relationship Quality (Panel C) on the Norm to Marry (Table 6)

Note: All continuous covariates constrained to their minimum value and all factor-variable covariates constrained to their base level.

Figure S2. Cross-Level Interaction Effect between Education of Respondent and Relationship Quality on the Norm to Marry (Table 6)

Note: All continuous covariates constrained to their minimum value and all factor-variable covariates constrained to their base level.