

Ethnic Capital and Inter-marriage: A Case Study of American Jews

Benjamin T. Philips*

and

Sylvia Barack Fishman

Brandeis University

Previous studies of ethnicity have focused on the role played by structural factors in assimilation and related processes. The utility of human and social capital in explaining analogous religious phenomena (e.g., religious switching and apostasy) suggests that similar actor-centered explanations may advance the understanding of ethnicity. We propose a model of ethnicity that integrates existing structure-centered approaches with the concepts of ethnic human and social capital in a soft rational choice theory framework. The usefulness of this approach is tested with respect to inter-marriage among American Jews, who maintain an extraordinarily diverse array of socializing institutions and have wide variation in levels of ethnic capital. The inclusion of variables measuring ethnic capital provides a significant increase in explanatory power. It is suggested that this framework may be applicable for other ethnic groups and further research is recommended.

The sociology of religion has been transformed by the interconnected approaches of human capital, social capital, and rational choice theory, moving toward a coherent account of individual and collective outcomes that encompasses structure and agency, preference formation and choice, as well as external costs and benefits. Ethnicity would appear to be fertile ground to apply similar theories.

Religious identity has traditionally been conceived as a conditional and exclusive choice from the array of all possible identities available in a society at a given time. Although subject to greater constraints than religion, ethnic identity similarly involves choice of both the location and content of identification. We conceive of ethnic identity as a conditional and potentially nonexclusive

*Direct correspondence to: Benjamin T. Phillips, Cohen Center for Modern Jewish Studies, MS014 Brandeis University, P.O. Box 549110, Waltham, MA 02454-9110, e-mail: bphilips@brandeis.edu. The authors wish to thank Harriet Hartman, Leonard Saxe, Charles Kadushin, Laurence Kotler-Berkowitz, Beverly Levine, MeLena Hessel, Dara Brzoska, Eszter Lengyel, and Daniel Parmer.

choice from the array of ethnic backgrounds presented by a given person's ancestry (Alba 1990).¹ Similarly, religious behavior is treated as a choice from the range of practices an individual associates with a particular religion or religions. Ethnic behavior is a choice from the range of cultural practices the individual identifies as associated with a given identity.

The major difference between ethnic and religious identity at present, then, is not one of form but context. Ethnicity has remained largely centripetal, with minority identities tending to be subsumed by the identity of the core society. American religion, on the other hand, has been centrifugal since the 1960s, seeing shifts from the former center of mainline and liberal Protestant denominations to conservative Protestantism, non-Christian religions, and no religion (Roof and McKinney 1987; Sherkat and Wilson 1995; Sherkat 2001; Stark and Glock 1968b). Given the analogous nature of religion and ethnicity, it seems reasonable to assume that ethnicity and its correlates will also be affected by upbringing and the extent of in-group ties. Accordingly, we introduce two new concepts to the sociology of ethnicity: ethnic human capital and ethnic social capital.²

Like other forms of production, the quantity and quality of the production of nonmarket commodities depends in part on the human capital of the producer (Becker 1962, 1964; Schultz 1961; Walsh 1935), an individual's skills and knowledge applicable to the task at hand (Iannaccone 1990:298). In the case of ethnicity, many forms of ethnic behavior are in fact quite concrete: cooking ethnic dishes, speaking an ethnic language, celebrating ethnic festivals. The ability to produce these ethnic commodities depends on the level of ethnic human capital—an individual's knowledge of and skill at the cultural practices of a given ethnicity. The extent of ethnic human capital required depends on the ethnic commodity being produced. While celebrating ethnic festivals often requires

¹ We present a simplified version of ethnicity that does not address race to maintain focus on the concept of ethnic capital. Race, however, can be incorporated into this scheme as a limit on the array of ethnic identities available. Some ethnic identities are closed to people who members of the group perceive to visibly differ from the norm in unacceptable ways. While the opinion of other members of the ethnic group need not impact self-image, it does preclude participation in the public aspects of ethnic life. This does not answer, however, whether race as an ascribed identity can vary over time. Brodtkin (1998), for instance, presents evidence that the definition of "white" race has expanded to include European groups formerly treated as separate races, though this sheds little light on whether present understandings of race are mutable or reified. For these purposes, Alba and Nee's (2003) concepts of boundary crossing, boundary shifting, and boundary blurring are useful functional descriptions of the ways in which racial identity can change (see also Alba in this issue). It is likely, though, that the growing number of individuals with multiple racial backgrounds—and increasing recognition of the possibility of plural identities—will challenge monolithic conceptions of race, and may eventually decrease the limitations race imposes on ethnic choice.

² The term "ethnic capital" has been used in the economic literature on the intergenerational transmission of differences in the socioeconomic status of ethnic groups where it is defined as the mean level of socioeconomic achievement of a given cohort of an ethnic group (Borjas 1992, 1994, 1995, 1998; Cutler, Glaeser and Vigdor 1995; Darity, Dietrich and Guilkey 2001).

very little in the way of skill or knowledge, reading proficiently in a second language associated with that ethnicity requires a high degree of skill.

Production, however, is only part of the story. As Iannaccone (1990:299) notes with regard to religion, the ability to appreciate a commodity is important and depends on knowledge of the cultural matrix in which the product is situated. A commodity is an ethnic product only to the extent that the consumer identifies it as ethnic. For the ethnic commodity to be meaningful, the ethnic culture itself must be in some way significant to the consumer. But what determines the subjective significance of ethnic culture? Cultural preferences are learned, and we would expect individuals with greater levels of ethnic human capital to be more likely to find ethnicity important. Initially, the level of ethnic human capital depends on the environment in which the individual is raised.

Subsequently, ethnic human capital is partially recursive, enabling participation in a wider range of ethnic activities and increasing an individual's preference for ethnic behavior, which in turn may generate further ethnic human capital. Ethnic human capital, then, is necessary for both the production and the reception of ethnic commodities.

Social capital exists in the relations between persons that facilitate action (Coleman 1988). Ethnic social capital is the extent and nature of an individual's ties to members of a given ethnic group. The nature of the network itself affects the way in which an individual influences and is influenced by other actors. An unacculturated ethnic group can be seen as a closed social network where actors are highly interconnected ("consolidated social relations" in the terminology used by Sandomirsky and Wilson [1990] and Sherkat and Wilson [1995]), which may enhance the creation of group norms. These ties, for example, can play a critical role in ensuring behavior is in accordance with ethnic customs. A person who perceives another to have transgressed can use relationships with other members of the group to effectively sanction the transgressor. Where the putative victim has no indirect ties to the transgressor, there is no possibility of multilateral sanctions, and thus maintenance of group norms is difficult if not impossible (Iannaccone 1994; Sherkat 2001). Where ties between actors are multiplex, encompassing different strands of life—work, religion, and family—sanctions will be much more effective as they impose greater costs. Similarly, the more a person's ties are concentrated in a single closed system, the greater the potential costs.

As ethnicity is most fully experienced in community, free-riding is at least as serious a problem as it is for religion (Iannaccone 1992). There is little incentive to speak an ethnic language, for instance, if there is no one to converse with. If nonproducers are able to benefit from the positive externalities produced by others, there is little incentive to expend capital on a good they can receive for free. Sanctioning, then, is particularly important for the production of ethnicity as a collective good.

Social capital also provides access to information. This is of crucial importance to ethnicity, which is often expressed in subtleties of meaning that are

learned dialogically—this behavior is appropriate at this time, this food has ethnic meaning, and so on. In contrast to in-group ties, or bonding social capital (Gittell and Vidal 1998; Putnam 2000), out-group ties—bridging social capital—present a potentially competing form of social capital. Out-group ties offer alternate interpretations of cultural practices that may affect an individual's preferences. Bridging social capital also decreases the power of the ethnic group to penalize “undesirable” behavior, as the sanctioned individual has an alternate set of relationships that remain unaffected and can partially substitute for the loss of bonding social capital. While it is possible to have little social capital of any sort, or high levels of both bridging and bonding social capital, the ratio between these forms will influence the impact of ethnic human capital.

The concepts of ethnic human and social capital outlined above have greater explanatory power if integrated into the broader theoretical construct of rational choice theory. As with rational choice theories of religion, it is necessary to relax some of the assumptions of “hard” rational choice theory for ethnicity, specifically overly economic notions of utility and perfect knowledge (Sherkat 1997; Sherkat and Wilson 1995). A subjective conception of utility requires an understanding of how an individual weighs potential costs and benefits, which in turn invokes the notion of preference formation. Ethnic human capital as input is extremely important, playing a crucial role in the salience of ethnicity for an individual. Similarly, knowledge of courses of action and their outcomes must be relaxed into a bounded rationality that recognizes that an individual's knowledge of alternatives is determined by external factors, such as the extent of bonding and bridging social capital.

Ethnic social capital plays a major role in an individual's ability to gain access to resources critical for investment in ethnic human capital, which in turn give ethnicity substance and meaning. Structure is incorporated into this conception as an exogenous source of costs, benefits, and constraints. State repression or negative public opinion, for instance, can be a powerful disincentive to overt ethnic identification, while positive images may be incentives to identification, as may be indicated by the hierarchy of ethnic identities found by Waters (1990). Specific behaviors are likewise subject to costs and incentives, with those that conflict with the core society, like holidays that fall on weekdays or parental choice of their child's spouse, often falling into rapid desuetude (Sklare and Greenblum 1979).

Though soft rational choice theory may seem inappropriate for a highly subjective construct, it has strong parallels with Bourdieu's influential and widely used concepts of habitus, capital, and field. The concept of preferences, which influence perceptions of costs, benefits, and risks is analogous to “habitus,” a system of “durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles which generate and organize practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations necessary in order to attain them” (Bourdieu 1990:53). Like habitus, preferences

lead an individual toward a given set of behaviors and attitudes and are self-reinforcing, as those attitudes and behaviors in turn influence preferences.

The resemblance of Bourdieu's concepts of "social capital" and "embodied cultural capital" to social and human capital is even closer. For Bourdieu, social capital is "the sum of the resources, actual or virtual, that accrue to an individual or group by possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (Bourdieu and Wacquant 1992:119), of which the "sum of resources" is the outcome facilitated by the network of ties constituting Coleman's (1988) theory of social capital. Embodied cultural capital consists of "long-lasting dispositions of the mind and body" (Bourdieu 1986:243) that are assimilated or acquired over a long period, incorporating, like human capital, a person's skills and knowledge in a particular context.

The value of capital is dependent on the field, a "pitch or board on which [a game] is played, the rules, the outcome at stake, etc." (Bourdieu 1990:67), which equates to the implicit concept of the specific environment (e.g., ethnicity) in which a given form of social or human capital has value. Bourdieu's concept of field, however, also incorporates social structure—"the objective factors within which [a game] is played out" (1990:66)—which rational choice theory treats as a source of exogenous costs, benefits, and constraints.

The concept of ethnic capital is conceived as an overarching framework that encompasses existing theories of ethnicity and generates testable hypotheses, rather than as a competing proposition. We interpret assimilation theory in ethnic capital terms to demonstrate the flexibility and utility of the concept.

The major schools of thought on assimilation are undertheorized, focusing on projecting the future of migrant societies without providing a coherent framework to describe assimilatory processes. The proposition underlying all theories of assimilation concerns the nature of the relationship between ethnic capital and length of residency. "Straight-line" theories (Warner and Srole 1945; Wirth 1928) posit a uniform decline in social and human ethnic capital across generations leading to the eventual disappearance of the ethnic group as a social unit. "Ethnic revivalists" (Glazer and Moynihan 1963; Greeley 1971; Novak 1971) see an increase in ethnic capital in the third and later generations. Finally, "bumpy-line" theories (Gans 1992) assert that ethnic social and human capital have declined precipitously, although relatively content-free ethnic identification may persist for extended periods (Alba 1990; Gans 1979; Lieberman and Waters 1988; Waters 1990). Crucially, many of the proponents of this position recognize that the rate of assimilation varies depending on the group, with some groups retaining ethnic capital for longer (Alba 1990; Alba and Nee 2003), although the implications of inter-group variation have not been fully realized.

An important consequence of the failure to specify the nature of the connection between generation and ethnicity has been assimilation theory's focus on structural questions. Why some families assimilate at faster rates than others remains unanswered, and with it the possibility that the choices exercised by the

individuals that make up ethnic groups may influence the group's rate of assimilation. While not necessarily providing the ultimate explanation for variations in assimilation between ancestry groups, ethnic capital plays a vital mediating role in the transmission of ethnicity. Not only is ethnic capital an outcome, as is implicit in the assimilation literature, but it plays a role in ethnic choice, as individuals with greater ethnic capital will be more likely to retain ethnic identification and invest in their children's ethnic capital, a subject that has received little attention in the literature. The lack of an explicit concept of ethnic capital has contributed to the focus on group-level, structural analyses of assimilation rather than at the level of the individual.

ETHNIC CAPITAL AND INTERMARRIAGE

While the concept of ethnic capital has been shown to incorporate existing theories, its utility depends on its ability to expand theoretical and empirical knowledge about ethnicity. To demonstrate the usefulness of an ethnic capital approach to assimilation, we examine the causes of intermarriage, a key product of and contributor to assimilation among American Jews. The Jewish intermarriage rate of about 50 percent is extremely low, given environmental odds of intermarriage of 98 percent. This compares with ethnic intermarriage rates of 80 percent for U.S.-born whites³ (Alba 2000:218-220) and religious intermarriage rates of 38 percent for Catholics and 65 percent for moderate Protestants (Sherkat 2004), each of which would be expected to have far lower intermarriage rates than Jews given the greater size of the groups. American Jewry may represent the outer limits of resisting assimilation for white ethnic groups in the United States.

The identification of Jews as an ethnic group may run counter to commonly held conceptions about the nature of Jewish identity in the United States. The religious mode of Jewish organization in the United States has, however, been attributed to the core culture's validation of religion and anathematization of ethnicity as a basis for social differentiation during the nineteenth and early twentieth centuries, with the synagogue serving as an "ethnic church" (Sklare 1972; Sklare and Vosk 1957). Significant features of American Jewish society run counter to the religious mold. Comparative data tend to bear out these conclusions, with Jews consistently reporting the lowest levels of religiosity among American religious groups (Mayer, Kosmin, and Keysar 2003; Smith et al. 2003). Attitudinal data similarly suggest that religion plays a secondary role in the Jewish identity of many American Jews. Most Jews, however, affirm both religion and ethnicity and experience them holistically. From its inception, Jewish identity has contained elements of ethnicity and religion ("Your people shall be my

³ This calculation is based on Alba's (2000:218) finding that 20 percent of marriages between two whites involved individuals with identical backgrounds, while 2 percent of married whites had a nonwhite spouse (p. 220).

people, and your God my God" [Ruth 1:16]). Even the quintessentially religious act of conversion contains ethnic elements, as the proselyte is literally regarded as the child of Abraham and Sarah, the progenitors of the Jewish line.

Although the mutually reinforcing ethnic and religious elements of Jewish identity are found among relatively few ethnic and religious groups, American Jews are useful for the study of white (and possibly other) ethnic groups because of their unusual combination of rapid acculturation and slow assimilation. Structurally, American Jews support an unmatched range of educational and social institutions focused on generating ethnic and religious capital, allowing comparisons of the impact of ethno-religious capital from near nonexistence to individuals who are practically isolated from the core society.

Influences on Intermarriage

Gender. Status theory predicts that men of a non-core group exchange their socioeconomic achievement for marriage with a less successful spouse of higher ascribed status (Jacobs and Labov 2002; Kalmijn 1994; Lee and Fernandez 1998; Mare 1991). Jews, however, represent something of a problem from a status exchange theory perspective as their ascribed status has increased dramatically within many people's lifetimes, leading to the tentative conclusion that Jewish men should have intermarried at a higher rate in earlier years. Previous studies of the Jewish community are contradictory, with some authors finding no gender differences in patterns of intermarriage among Jews married in the period 1970-90 (Keysar et al. 1991; Lazerwitz 1995), while others report no diminution of the disproportionate intermarriage rate of Jewish men (Kosmin, Lerer, and Mayer 1989; Medding et al. 1992). *H1: Exogamy will be greater among Jewish men, with gender differences decreasing over time.*

Socioeconomic status. Status theory likewise successfully predicted the positive association between high levels of education and exogamy among non-core ethnic and racial groups (Kalmijn 1993; Lieberman and Waters 1988; Schoen and Wooldredge 1989), analogous to Stark and Glock's (1968b) status-climbing model of denominational switching. In the case of a high achieving ethno-religious group like American Jewry, the relationship is harder to predict. A more generalizable model used in studies of religious switching and apostasy is that of status harmonization, which suggests that individuals whose status differs from that of their denomination will be more likely to switch to a denomination more in keeping with their own (Wilson 1966), a prediction that has been mostly validated by research (Newport 1979; Roof and Hadaway 1979; Sherkat and Wilson 1995). Similar observations have been regarding marriage, where the non-core group is of higher status: higher levels of education predict endogamy (O'Leary and Finnas 2002). Studies of contemporary American Jews have generally supported notions of status harmonization, finding a correlation between high levels of education and reduced likelihood of intermarriage among more recent cohorts in contrast with earlier cohorts (Ellman 1987; Keysar et al. 1991; Kosmin et al.

1989; Medding et al. 1992). *H2: Higher levels of socioeconomic status will predict exogamy in earlier cohorts and endogamy in later cohorts.*

Migrant status. The decline of endogamy among later generations of ethnic groups is a classic finding of the intermarriage literature (Alba 1976; Gilbertson, Fitzpatrick, and Yang 1996; Lee and Fernandez 1998; Lee and Yamanaka 1990; Liang and Ito 1999; Qian, Blair, and Ruf 2001), including studies of American Jews (Keysar et al. 1991; Lazerwitz 1971, 1995; Medding et al. 1992; Phillips 1997). As we argued above, the relationship between assimilation and migrant status is de facto an assertion that ethnic capital declines the moment one's ancestors set foot on their new land. *H3: Generation will not be associated with intermarriage once controls for social and human capital are introduced.*

Age at Marriage. Although the ethnic impact of age at marriage has not been addressed in the general literature, studies of marital choice suggest that older individuals are more likely to consider people with "undesirable" characteristics (such as children from a previous marriage) as potential spouses than do younger persons (Lichter 1990). Age at marriage has also been found to be related to intermarriage among American Jews at the bivariate level (Medding et al. 1992), though not once other variables are controlled for (Keysar et al. 1991). Similarly, second and later marriages of Jews were reported to be significantly more likely to be exogamous (Ellman 1987; Keysar et al. 1991; Kosmin et al. 1989; Lazerwitz 1971; Medding et al. 1992). *H4: Age at marriage will be associated with greater risk of intermarriage.*

Age. The impact of age is complicated by the strong relationship between age and migrant status, as well as age and age at marriage. Older cohorts have been consistently found to be less likely to have married non-Jews than more recent ones (Kosmin et al. 1989; Medding et al. 1992; Phillips 1997), mirroring patterns among descendents of other European groups (Alba and Golden 1986; Lieberman and Waters 1988). Similarly, year of marriage is also strongly implicated in intermarriage, with consistent reports of a rapid increase in exogamy after 1960 (Cohen 1988; Goldstein 1992; Keysar et al. 1991; Kosmin et al. 1989; Kotler-Berkowitz et al. 2004; Phillips 1997). However, Sherkat's (2004) finding that religious homogamy has decreased across cohorts suggests that age will exert an impact on intermarriage independent of generation. *H5: Age will be negatively associated with intermarriage. H6: Year of marriage will be positively associated with intermarriage.*

Ethnic human capital. Studies of ethnic intermarriage have paid little attention to the role played by investment in ethnic human capital. Where it is addressed, human capital is usually formulated in measures of acculturation like fluency in English, which proxies for competency in the core society and is associated with higher rates of intermarriage (Hwang, Saenz, and Aguirre 1997). We conceive of ethnic cultural capital as a quasi-independent dimension that retards acculturation. While the evidence suggests that acculturation leads to diminished levels of ethnic capital in the long term, the correlation is far from perfect,

with many individuals combining high levels of competency in both ethnic and core cultures. It is expected that greater parental investment in ethno-religious human capital will lead to lower rates of intermarriage among their children. A number of measures of investment are proposed below.

The denominational structure of American Judaism aligns very closely with traditionalism, religiosity, and child-rearing practices; Orthodoxy being the most traditional, followed by Conservatism, Reform, and the residual category of "Just Jewish" (Lazerwitz et al. 1998). Denomination also proxies for strength of ethnic identity, as can be seen in the relationship between non-religious and religious scales in indices of Jewishness (Hartman and Hartman 1996; Horowitz 2003). Intermarriage has been found to be greatest among less traditional denominations (Ellman 1987; Keysar et al. 1991; Lazerwitz et al. 1998; Medding et al. 1992; Winter 2002). The extent of ethno-religious practices in the parental household should also predict the likelihood of intermarriage (Cohen 1988; Phillips 1997). *H7: Fluency in English will be positively associated with intermarriage. H8: Being raised in a traditional denomination will be associated with lower risk of intermarriage. H9: Childhood ethno-religious practice will be associated with decreased odds of intermarriage.*

Formal education in ethnic culture may be another possible site for the production of ethnic human capital. Jewish educational offerings range from preschool programs, through single and multiday supplemental classes to Jewish day schools. All forms of Jewish education bar one day a week schools have been found to be associated with significant reductions in intermarriage (Cohen 1995; Fishman and Goldstein 1993; Keysar et al. 1991). Others have found Jewish education's effects inconsistent, although there is a consensus that long duration is most effective (Medding et al. 1992; Phillips 1997). Informal educational experiences, like youth groups, summer camps, and organized travel to Israel, have also been found to be associated with reduced levels of intermarriage (Cohen 1995; Phillips 1997). *H10: Greater duration and intensity of Jewish education will be associated with lower odds of intermarriage. H11: Informal education will be associated with decreased risk of intermarriage.*

If ethnic human capital decreases the likelihood of intermarriage, it would stand to reason that the presence of competing human capital may have the opposite effect, lowering the entry costs associated with acquiring cultural competency in a spouse's ethnicity (Phillips and Kelner this issue). The presence of a Christmas tree in the childhood home, for example, has been found to be associated with increased rates of intermarriage (Phillips 1997). An extreme case occurs when a child is raised as a "half-Jew," presumably being raised in two ethno-religious traditions. *H12: Competing forms of human capital will be associated with higher risk of intermarriage.*

Ethnic social capital. The lack of direct measures in the intermarriage literature is rather surprising, given that social capital is extremely important to marriage, providing access to potential spouses via family members or acquaintances.

In addition to access, the more a person's social capital resides in consolidated ties in a particular group, the greater the impact sanctions can have if there is disapproval of intermarriage. We would expect mixed ethnic or religious social capital in the family itself to exert a very powerful influence, dramatically reducing opportunities for sanctioning and increasing the number of bridging social ties (Kulczycki and Lobo 2002; Phillips 1997). *H13: Greater proportions of out-group friends will correlate with higher chances of exogamy. H14: Having intermarried parents will be associated with increased odds of intermarriage.*

Environment. Although the connection between a group's density in a given region and its rate of exogamy is perhaps the most studied influence on intermarriage (Anderson and Saenz 1994; Blau, Becker, and Fitzpatrick 1984; Blau, Blum, and Schwartz 1982; Blau and Schwartz 1984; Hwang et al. 1997), the effect of Jewish population density on intermarriage has never been tested. Jewish accounts emphasize differences in milieu to explain regional variation in intermarriage rates, which are highest in the West, followed by the South, Midwest, and Northeast. It is likely, though, that much of the putative environmental impact on intermarriage proxies for the demographic composition of the marriage market. *H15: Greater Jewish population density will be associated with greater odds of intermarriage.*

DATA AND METHODS

This paper uses data from the National Jewish Population Survey (NJPS) 2000-01 (United Jewish Communities 2003), see Kotler-Berkowitz in this issue for further details. To add context and texture to the quantitative data, we draw upon qualitative data from in-depth interviews of 127 households conducted for the Listening to Learn study of Jewish family life (Fishman 2001, 2004). The households were selected using a stratified multiplicity sample: data on household composition were obtained from a multiplicity sample seeded from Jewish Community Center lists from three communities (Atlanta, GA; Denver, CO; Metrowest, NJ); interview households were subsequently randomly selected from strata composed of intermarried (n=68), unmarried (n=36), and conversionary (n=23) households with children. To ensure sufficient numbers of interviews, households raising their children as Jews were oversampled within the intermarried stratum. Structured interviews were conducted with both spouses and focused on the negotiation of Jewish identity within the family.

Defining Intermarriage

The point at which intermarriage is measured is an important issue for an ethno-religious community. The religion in which a person was raised will yield a higher intermarriage rate than would current religion, given that conversion to the spouse's religion may precede or follow marriage (Lehrer 1998; Sander 1993). Ideally, the standard should be whether respondents were Jewish at the time they

married, but this information is not available from the NJPS. We follow earlier studies of Jewish intermarriage by including respondents who said they were raised as Jews (e.g., Phillips 1997).

Independent Variables

Sociodemographic status. The following sociodemographic variables are included in the model: gender, the square of age, and highest degree achieved. The square of age proved a better fit than a linear term alone or as part of a quadratic term. The respondent's highest educational achievement (less than high school, junior college, college, graduate/professional school) was used despite being ordinal, as it better modeled the effects of education than any combination of dummy variables. Other sociodemographic variables were examined but failed to contribute significantly to the model: occupational prestige (Nakao and Treas 1992), household income, an interaction between age and gender, and a separate term distinguishing first and second generation from later generation Americans.

Ethnic human capital variables. To model ethnic human capital, we include measures for being raised "half Jewish" (an optional response that was accepted but not read), growing up in an Orthodox or Conservative Jewish household, the square of estimated hours of Jewish education (Himmelfarb 1977), and English fluency. A number of additional measures of upbringing were considered but found not to have significant effects on the dependent variable: being raised in a Reform household, participation in a Jewish youth group during high school, and direct measures of family religious behavior in early adolescence (lighting Sabbath candles and frequency of attendance at Jewish services). Unfortunately, two very interesting means of transmitting ethnic identity—youth tours of Israel and summer sleep away camps—could not be analyzed due to the structure of NJPS.

Social capital. Social capital was measured using an index of the ethno-religious composition of the pre-adult social network.⁴ The index, split into two dummy variables, is based on high school friendship and dating patterns, with the cut points for high, medium or low (the reference category) Jewish social network developed from analysis of the constituent variables. The age at which respondents married their current spouse reflects the declining pool of potential spouses as a person ages. In addition, we include a dummy variable for intermarried parents.

Environment. To measure the impact of the environmental odds of finding a Jewish partner, population density at current residence is included, using region of the country as a control for regional differences not explained by density. This measure uses American Jewish Year Book (Schwartz and Scheckner 2001) estimates of the size of Jewish population by locality divided by U.S. Census esti-

⁴ High school friends are scored as none or some Jewish = 0, about half Jewish = 1, most or all Jewish = 2. High school dates are scored as only or mostly non-Jews = 0, both Jews and non-Jews = 1, only or mostly Jews = 2. These scores are added together (doubled if the respondent did not date). The dummy variables are coded as 1 to 3 = Medium Jewish social network, 4 = High Jewish social network.

TABLE 1

Means and Standard Deviations for Variables Used in the Analysis

Variable	Mean	S.D.
Intermarriage	0.378	0.485
Female	0.502	0.500
Age squared	2,941.160	1,728.35
Two non-U.S. born parents	0.309	0.462
Highest level of education completed	2.597	1.266
Parents intermarried	0.143	0.350
Ability to speak English	3.927	0.383
Raised half-Jewish	0.089	0.285
Raised Orthodox or Conservative	0.512	0.500
Jewish education (× 100 hours) squared	692.020	1,600.780
High high school Jewish social network	0.282	0.450
Medium high school Jewish social network	0.342	0.475
Age at marriage	28.245	9.755
Current Jewish population density	6.421	6.008
Current Jewish population density squared	77.306	130.617

Source: National Jewish Population Survey 2000-01.

mates of total population. To control for the clustered nature of Jewish population within states, population density for all Jewish communities of 15,000 or more were computed separately, with the Jewish and general population of these localities being removed for the calculation of the population density of the balance of the state. A separate analysis using only cases where the person was known to have resided in the same locality prior to marriage ($n=426$) resulted in a better fit, suggesting that current density in fact underestimates the impact of density at time of marriage.⁵ Region of current residence was also considered, but was not significant once current population density was introduced.

The means and standard deviations of variables used in this analysis are shown in Table 1.

PREDICTING INTERMARRIAGE

Table 2 presents the odds ratios of logit regression models predicting Jewish intermarriage versus being married to a Jew. The sociodemographic variables were introduced in Model 1. Gender had the expected impact. As predicted, women

⁵ In order to control for marriages that occurred prior to moving to current residence, we limited our analysis to respondents known to have moved prior to marriage. The coefficients of the limited sample were $\beta_{dens} = -.331$ and $\beta_{dens}' = .010$, against $\beta_{dens} = -.183$ and $\beta_{dens}' = .004$ for the full sample. The impact of current density appears to be, in fact, reduced by the inclusion of cases that may have moved subsequent to marriage.

TABLE 2
Odds Ratios from the Logistic Regression of Inter-marriage on Selected Variables

Independent variable	Model 1	Model 2	Model 3	Model 4	Model 5
Female	0.661**	0.791	0.623**	0.735*	0.757†
Age squared	1.000***	1.000***	1.000***	1.000***	1.000***
Highest level of education completed	0.850**	0.774***	0.862*	0.858*	0.833**
Two non-U.S. born parents	0.306***	0.381***	0.394***	0.414***	0.471***
Ability to speak English	-	0.882	1.876***	1.474	1.230
Raised Orthodox or Conservative	-	-	0.452***	0.619**	0.623**
Jewish education (? 100 hours) squared	-	-	1.000***	1.000***	1.000**
Raised half Jewish	-	-	6.519***	4.185***	4.300**
High high school Jewish social network	-	-	-	0.140***	0.170***
Medium high school Jewish social network	-	-	-	0.455***	0.456***
Parents intermarried	-	-	-	2.990***	2.473**
Age at marriage	-	1.054***	-	1.059***	1.060***
Current Jewish population density	-	0.783***	-	-	0.834***
Current Jewish population density squared	-	1.006***	-	-	1.005***
Log pseudo-likelihood	1,143,090	-1,034,965	-980,947	-846,975	-811,327
D.F.	4	6	8	12	14
Pseudo R ²	.102	.161	.221	.302	.331
AIC	2281.156	1958.268	1969.923	1712.289	1645.315
Observations	1,902	1,849	1,886	1,821	1,821

Source: National Jewish Population Survey 2000-01.

Note: † p < .1 * p < .05 ** p < .01 *** p < .001 (two-tailed tests).

were somewhat less likely intermarry, although the expected decrease in difference in intermarriage rates between genders over time was not significant (results not shown). Higher levels of education were associated with decreased likelihood of intermarriage, although other measures of socioeconomic status were not (income and socioeconomic status; results not shown). There was a decreasing return on age, with younger cohorts being disproportionately likely to intermarry. Contrary to expectations, having two non-U.S. born parents (whether or not the respondent was a migrant herself) also reduced the odds of intermarriage.

In order to evaluate the extent to which the inclusion of social and human capital variables offer a meaningful improvement to explanations of ethnic intermarriage, Model 2 presents a simplified adaptation of the sophisticated model of Asian American intermarriage developed by Hwang et al. (1997), which is unusual in its use of "assimilationist" (i.e. individual-level) variables, and multivariate analysis.⁶ If the inclusion of ethnic human and social capital increases the explanatory power of the model, we would expect further improvements by including the full range of structural variables used by Hwang et al. Likely due to the highly acculturated nature of the sample, level of fluency in English did not predict intermarriage. The effects of the remaining variables were consistent with other models, although the effect of gender was no longer statistically significant.

Variables measuring human capital are added in Model 3. Investment in Jewish human capital was measured by a proxy for traditionalist denominations and was associated with decreased odds of intermarriage. It appears that this is a threshold effect, with the moderate level of investment in Jewish human capital in Conservative households seemingly necessary and sufficient to decrease the likelihood of intermarriage, holding other factors constant. The failure of direct measures of Jewish human capital may be due to the simplistic nature of the available items. Investment in Jewish human capital outside the household in the form of Jewish education was also associated with decreased probability of exogamy. As predicted, competing human capital, measured as being raised half-Jewish, was associated with a very large increase in the odds of intermarriage. The presence of a Christmas tree, however, was not independently associated with intermarriage (results not shown).

Model 4 introduces measures of Jewish social capital. A heavily Jewish social network in high school was associated with dramatically lower odds of intermarriage. Even a person with a moderately Jewish set of friends was far less likely to marry a non-Jew later in life than someone with few or no Jewish friends in high school. Interview data from the Listening to Learn study support these findings: Jews who had most Jewish friends in high school tended to replicate that pattern in college, and eventually to marry Jews. As interviewees spoke about their high

⁶ We are unable to reproduce the Hwang et al. (1997) model fully due to differences between sources of data. Hwang et al. use the five percent Public Use Microdata Sample of the 1980 U.S. Census. As it contains information on the relative size of ethnic populations and sex-ratios within ethnic populations, Census data allows for far more sophisticated modeling of structural factors than NJPS.

school and college friends, a clear division emerged between inmarried and intermarried populations: those who later married Jews thought highly of the Jews they encountered during their high school years, whether in public school, youth group, summer camp, or day school settings. In contrast, those who married non-Jews had often felt uncomfortable with Jewish friends or institutions. Some described Jewish environments as “materialistic” or “stifling,” saw themselves as “always different,” or were embarrassed about being Jewish. Conversely, the Christian spouses of Jews also often developed primarily Jewish friendship circles in high school. For Christians, as for Jews, social capital is an important predictor of friendship and marriage later in life. The presence of competing social capital in the form of a non-Jewish parent increased the likelihood of intermarriage.

In keeping with predictions derived from the declining size of the marriage market, older age at marriage is associated with being more likely to be intermarried. Although the probability of intermarriage is greatest among younger people who marry later in life, at any given time, a younger person who has just married is less likely to be intermarried than an older person who has also just married. The interview data, however, suggest that the effect of age at marriage needs to be interpreted cautiously, as marriage to a non-Jew was sometimes preceded by an extended period of cohabitation, during which time the couple struggles with their issues around marriage. In some cases, then, older age at marriage for intermarried Jews may be a product of religion of partner rather than the reverse. In the interview data, Jewish women were especially likely to describe “waiting to find a Jewish man I wanted to marry,” and then finding that other factors became more significant as the years passed.

Model 5 introduces current Jewish population density to the model. Higher Jewish population density is associated with lower rates of intermarriage, albeit with a decreasing rate of return. There is little U-curve effect, with the estimated probability of exogamy increasing marginally only at extremely high population densities reached in a few counties in and around New York City, suggesting there may be a saturation effect once a community is approximately 20 percent Jewish.

In order to determine whether the use of ethnic capital improved the explanatory power of the models, we used the Akaike Information Criterion (AIC; Akaike 1973), which allows for comparisons between nonnested models; lower AIC scores indicate better model fit.⁷ The AIC scores indicate that Model 4, which includes ethnic social as well as human capital, and Model 5, which adds a structural variable in the form of Jewish population density both have considerably better model fit than Model 2, an adaptation of an unusually sophisticated model of intermarriage without measures of ethnic capital. This indicates that measures of human and social capital are important additions to the repertoire of factors influencing assimilation.

⁷ As our analyses use pseudo-likelihood estimation routines for complex survey data, AIC is derived from otherwise identical models not adjusted for survey design, which produce true likelihoods required for the AIC.

TABLE 3

Standardized Odds Ratios for Intermarriage Model 5 Sorted by Magnitude

Independent Variable	Standardized Odds Ratio	Type of Odds
High high school Jewish social network	0.450	Pr(y = 1)
Age squared	0.508	Pr(y = 1)
Age at marriage	0.569	Pr(y = 0)
Current Jewish population density + squared	0.627	Pr(y = 1)
Jewish education (× 100 hours) squared	0.657	Pr(y = 1)
Raised half-Jewish	0.660	Pr(y = 0)
Medium high school Jewish social network	0.679	Pr(y = 1)
Two non-U.S. born parents	0.706	Pr(y = 1)
Parents intermarried	0.728	Pr(y = 0)
Raised Orthodox or Conservative	0.789	Pr(y = 1)
Highest level of education completed	0.794	Pr(y = 1)
Female	0.870	Pr(y = 1)
Ability to speak English	0.924	Pr(y = 0)

Source: National Jewish Population Survey 2000-01.

In order to compare the impact of the predictive variables, Table 3 shows standardized odds ratios. Social capital appears to be the most important predictor of endogamy, with a highly Jewish social network in high school and population density both having major impacts on intermarriage, while age at marriage (which measures the composition of marriage markets) was also significant, though having intermarried parents had a lesser effect. Age had a large effect, which we interpret as a decline in internal and external boundaries. Ethnic human capital had a lesser, but still important, effect. Jewish education is an important predictor, although being raised Orthodox or Conservative was not a major factor. The impact of migrant status was relatively small. Predictors derived from status theory (level of education and being female) had the smallest impact.

DISCUSSION

Existing narratives of assimilation—straight-line theory, ethnic revivalism, bumpy-line theory—are implicit accounts of the extent of ethnic capital among migrants and their descendents: it will decline; it will remain at high levels; some forms will decline while others may persist for generations. The successors to straight-line theory disengage acculturation from assimilation. Ethnic revivalists argue, in effect, that acculturation is at most weakly related to assimilation, while bumpy-line theorists see strong but imperfect correlation. However, the evidence advanced in support of each position relies on analogy rather than causality.

Glazer and Moynihan (1963), for instance, infer from the growth of identity politics that white ethnics are not assimilating. Alba's (1990) extremely thorough study of assimilation examines a wide range of measures across ethnic groups to demonstrate the continuing decline of ethnic distinctiveness, but uses only indirect measures of upbringing (generation in the United States, confidence in knowledge of ethnic ancestry, single or mixed ancestry, and ethnic identity). In neither case, nor the many others they exemplify, is cross-generational transmission of ethnicity studied at the individual level.

Treating ethnicity as a rational choice—while recognizing structural constraints and the role played by external costs and benefits—is critical as it focuses attention on the impact of socialization on an individual's preferences. The concepts of ethnic human and social capital provide a useful framework for understanding socialization, differentiating capital valued in the core society (the total of which effectively corresponds to the extent of acculturation) from capital with value in an ethnic context. Such differentiation is helpful as it provides a theoretical explanation for the empirical reality of individuals with high cultural competency in the core society and the ethnic group.

In order to test this approach, we examined the causes of intermarriage among American Jews. Most accounts of intermarriage (e.g., Blau et al. 1982) focus on the effects of macro-level social structure rather than the cross-generational transmission of ethnicity. The theoretical framework we outline suggests that ethnic social and human capital are important predictors of intermarriage.

The results demonstrate that variations in ethnic capital play a critical role in assimilatory outcomes. Social capital was particularly important, as the number of Jewish friends in high school was one of the strongest predictors of intermarriage later in life. The other direct measure of social capital, intermarried parents, captures the presence of cross-ethnic ties in the family itself. Parental intermarriage, too, played a major role in later life, as those with intermarried parents were nearly twice as likely to marry a non-Jew themselves. Interview data suggest that psychological factors are also at play. Jews who married Jews talked about an erotic charge in finding the familiar—"He was so much like me." In contrast, Jews who married non-Jews talked about the appeal of the exotic—"He wasn't at all like the people I grew up with."

Human capital was also predicted to influence intermarriage. Looking first at ethnic human capital, the extent of formal Jewish education was a major factor in whether a person intermarried, having an increased rate of return on investment, with each hour of Jewish education having a greater impact than those that came before. Youth groups, by far the least potent variety of informal education, did not have a significant effect. Investment in ethnic human capital at home was also related to intermarriage, as children from traditionalist (Conservative and Orthodox identified) households were less likely to intermarry than those raised in Reform identified and unaffiliated households, the members of which on average observed fewer Jewish rituals, had fewer Jewish friends,

and were less likely to belong to Jewish organizations (Lazerwitz et al. 1998). Contrary to our expectations, direct measures of Jewish practices in childhood did not have a significant effect on the odds of intermarriage. It may be the case that the period of time respondents were asked about—age 11 or 12—biased the measure, as many households that have relatively low rates of investment in ethnic capital bring their children to synagogue quite frequently in the years before their bar or bat mitzvah.

It was also predicted that conflicting forms of human capital would increase the odds of intermarriage. Indeed, people who were raised “half Jewish” were estimated to be more than three times more likely to intermarry than a person who was raised as a Jew, all else being equal. The presence of a Christmas tree in the household, by contrast, did not have a significant effect once other factors were controlled.

The notion that acculturation—in the form of high levels of education—would increase the rate of intermarriage was less successful. In fact, education had the opposite effect, with the most highly educated the least likely to intermarry, holding all other factors constant. As studies of most other ethnic groups find the opposite relationship, further consideration is needed. Given the long residency and high socioeconomic achievement of American Jews (Hartman and Hartman 1996; Kotler-Berkowitz et al. 2004), it is possible that Jews are effectively fully acculturated. While American Jews are indeed highly acculturated, this does not explain the inverse effect of education. A more robust explanation is suggested by O’Leary and Finnas (2002): education measures the impact of socioeconomic achievement on social networks—if a group is of high socioeconomic status, social stratification should lead to highly educated members having a deeper pool of in-group partners than group outliers, while the reverse should be true for low achieving groups, where the most highly educated will have fewer contacts with group members.⁸ Other measures of acculturation returned mixed results. Migrants and the children of migrants were more likely to marry Jews than third and later generation Americans of Jewish descent (there were no statistically significant differences within these groups), even after other factors were controlled for. The combination of acculturation and group distinctiveness seen in the Jewish community supports the notion that acculturation does not predict assimilation at the individual level, and a considerable lag may exist between acculturation and identificational assimilation.

While we have discussed ethnic social capital, social capital more broadly plays a significant role in marital choice. Individuals choose their spouse from the pool of potential spouses they know (Murstein 1976). The older a person marries, the shallower the pool of eligible spouses, and the more likely one is to satisfice, considering spouses with characteristics that might otherwise be “undesirable”

⁸ This effect is particularly strong for American Jews, who are overrepresented at institutes of higher education (Hartman and Hartman 1996). The majority of Jewish students attend a small pool of generally prestigious colleges and universities.

(Lichter 1990). Intermarried women who were interviewed described “waiting for a good Jewish man” initially, and eventually marrying a non-Jew because the Jewish men they met did not meet their criteria, or did not seem interested in marrying a Jewish woman or a woman their age. Unexpectedly, intermarried interviewees spoke of satisficing behavior on the part of their parents, too, who warmed to the idea of their child marrying a non-Jew as she aged. For many parents, the eventual appeal of a married child—and grandchildren—overcame initial reservations.

While social networks are extremely important, structural factors continue to play a major role in spousal choice. The density of Jews in a given area was one of the strongest predictors of intermarriage, and it is likely that the impact would have been greater still had data been available on density at the time and place of marriage. The significance of ethnic social capital and age at marriage shows that while environmental odds are important, they explain only a portion of the composition of social network. Future studies of intermarriage would benefit from measures of social network at different stages of the lifecourse, rather than relying only on childhood measures, as we have done here.

A rational choice theory approach to ethnicity, incorporating the concepts of ethnic human and social capital, has been shown to provide significantly greater explanatory power than existing models of ethnic intermarriage. Structural models are important, but fail to account for the environment in which an individual is embedded and the impact of upbringing and smaller-scale structural features on his or her social network, which determines the potential spouses to which an individual has access. The role played by upbringing likewise has been underappreciated. Consciously or not, investment in ethnic human capital does occur and will be associated with increased ethnic identity in later life. In order to advance the field, however, a broader range of measures of ethnic exposure in childhood are required.

We believe that this approach has the potential to expand understanding of ethnicity in other areas as well. Alba’s (1990) seminal study of assimilation among ethnic whites, for instance, would have been more powerful had respondents been asked about their upbringing. Like any new approach, this contribution will stand or fall on its ability to increase understanding of the phenomena it purports to describe. Whether the concepts outlined in this paper apply outside the American Jewish community is an important question and will hopefully be answered by future research.

Note: For References, refer to the Bibliography at the end of this issue.