Spouse Selection among the Children of European Immigrants: A Comparison of Marriage Cohorts in the 1960 Census[1]

Matthijs Kalmijn
Princeton University

This article uses 1960 census data to describe patterns of spouse selection among the native-born children of European immigrants. The analysis builds on previous studies of ethnic intermarriage, but is new in that it focuses specifically on the second generation. In addition, it considers intermarriage as a multidimensional phenomenon and evaluates how the relative importance of national and educational boundaries in marriage choice has changed. Comparisons of synthetic marriage cohorts suggest that second generation European Americans marry increasingly into the native stock, they marry increasingly out of their national origin group, and the national boundaries that separate them have become weaker over time. At the same time, it is found that educational homogamy has increased across cohorts. More generally, changes in the marital assimilation of the second generation can be characterized as a shift from national origins to education. Methodologically, the study is novel in that multidimensional logmultiplicative models of association are used as a new way of measuring marriage distances between groups.

Because ethnic differentiation in the United States has its roots in a long and continuing history of international migration, the rise and fall of ethnic boundaries in American society cannot be understood fully without considering the experiences of second generation Americans. The American-born children of immigrants are caught between two cultural worlds. They are born into a world that is dominated by American norms and values, and they are raised in a home that is at least partly oriented toward the culture of a country they have never known themselves. While they feel pressured to

[1] An earlier version of this study was presented at the annual meeting of the Population Association of America in Washington, D.C., March, 1991. I greatly appreciate comments on an early draft of this paper by Kazuo Yamaguchi, Valerie Oppenheimer, Nancy Landale, Harry Ganzeboom, and Donald Treiman.

become part of both worlds, they also find that the relationship between these worlds is characterized by cultural differences, lack of mutual acceptance, and sometimes open conflict. Even more so than their immigrant parents, it has been said, they are faced with the difficult choice of holding on to the ethnic culture at home or adapting to an American culture outside (Herberg, 1960:16; Aronowitz, 1984). How the second generation solves this possible conflict of loyalties is the underlying question of the present study.

One way of answering this question is to examine their marriage choices. Since marriage is usually the most intimate and enduring personal relationship that people have, patterns of spouse selection are ideal ways of describing how social groups accept each other. The tendency to marry within the group has traditionally been regarded as the most tangible form of group loyalty; conversely, intermarriage is seen as providing a fundamental bridge between social groups. This study examines the marriage choices of second generation European Americans in the 1960 census. It compares the role of national origin and educational attainment in the choice of a spouse and assesses how the importance of these factors differs across marriage cohorts. By comparing the salience of national and educational boundaries in marriage patterns, indirect evidence on how the second generation deals with its position as an intermediary between two cultural worlds is obtained. Marrying within the national origin group reflects an orientation toward the country of their family of origin, whereas marrying within the educational group reflects an orientation toward their expected position in the American status hierarchy. A multivariate analysis of ethnic and educational marriage patterns may thus detect whether the orientation of second generation Americans has shifted from their historical roots abroad toward their future in American society.

Although an impressive amount of research has recently been done on intermarriage among white ethnic groups in the United States (*e.g.*, Alba and Golden, 1986; Lieberson and Waters, 1988), research that focuses specifically on immigrant children goes back further in time. A classic example is Drachsler's large-scale study of intermarriage among first and second generation European Americans in New York City in the beginning of this century (Drachsler, 1921). Although this study was primarily motivated by the then prevailing concern that Old-World rivalries and military conflict in Europe would frustrate relationships among European groups in the United States, Drachsler was also more generally concerned with the question of ethnic boundaries in an immigrant society. His detailed examination of marriage records led him to conclude that intermarriage occurred primarily between people who have similar religious backgrounds, who

speak similar languages, and who are of the same generation. Recently, the historical study of first and second generation European Americans has been picked up by Pagnini and Morgan (1990) in their analysis of intermarriage in the census of 1910. Using loglinear models, they show that endogamy was stronger among "new" immigrant groups like Italians and Russians than among "old" immigrant groups like western and northern Europeans. They also find that intermarriage between old and new groups was rare and that endogamy was weaker in the second than in the first generation.

Little is known about how the marital assimilation of immigrant children has changed. Most studies examining trends in ethnic intermarriage do not take into account generation. Comparisons of marriage cohorts at one point in time, typically show that ethnic ancestry in the white population has gradually become less salient (Alba and Golden, 1986; Lieberson and Waters, 1988), but because these studies combine all immigrant generations, it is still unclear to what extent the weakening of ethnic boundaries reflects a generational shift. Since third and higher generation Americans are more removed from their historical roots, the overall increase in ethnic intermarriage may simply be due to an increasing number of higher generation Americans in the population (Alba, 1988). If one wants to evaluate whether the process of assimilation in the United States has changed, it seems more appropriate to compare the marriage choices of early generation Americans in the beginning of this century to the marriage choices of early generation Americans later this century. The aim of the present study is to provide new evidence on the historical change in marital assimilation by comparing three cohorts of second generation European Americans in the 1960 census.

THE ROLE OF NATIONAL ORIGIN VIS-À-VIS EDUCATIONAL ATTAINMENT

Previous studies of ethnic intermarriage often examine the role of national origin without taking into account other dimensions of marriage choice. At the same time, it is recognized that choosing a spouse is a multidimensional process. People not only marry within their national origin group, they marry within their race, within their religion, and they have strong tendencies to find spouses of similar educational and occupational status. There are several reasons to consider ethnicity and education in an analysis of marriage selection simultaneously. Since national origin groups differ in socioeconomic status, a possible reason why second generation Americans marry endogamously is that they have a tendency to marry someone of similar education. For instance, second generation Russian Americans may marry within their group because they are particularly attached to their

national origin, but they may also marry endogamously because they tend to be highly educated while being "attached" to the cultural life styles that come with their education. More generally, when different kinds of group boundaries overlap, marrying endogamously in one respect often implies marrying endogamously in another respect as well. Under such conditions, multivariate analysis is needed to assess the independent strengths of alternative selection criteria.

A comparison of the role of national origin with that of education is also important because of the conceptual differences between these forms of marriage selection. First, educational boundaries in marriage choice reflect vertical forms of differentiation, whereas national boundaries reflect horizontal forms of differentiation. Since education is the main determinant of people's future status position in society, educational homogamy is caused in part by competition for spouses of high status (Mare, 1991). If people prefer to marry economically attractive spouses, the most attractive men and women will select among themselves and the least attractive men and women have to rely on each other. In a more general sense, educational homogamy serves as evidence that higher status groups maintain a distinction from lower status groups in primary relationships (Ultee and Luijkx, 1990). Although American society often grants different levels of prestige to the various ethnic groups, membership in an ethnic group by itself is not based on the control of scarce resources like income and education. National origin groups differ in socioeconomic status, but if such differences are taken into account, the distinction between national origin groups is not hierarchical in nature. Members of a given national origin group have certain norms, values and rituals in common, and they share an awareness of a common social and cultural history (Gordon, 1964). These cultural differences serve as mutual boundaries in social interaction and may contribute to the endogamous closure of ethnic groups in American society.

Second, ethnic endogamy reflects the importance of primary socialization whereas educational homogamy reflects the importance of secondary socialization. In a pluralistic society, the family and community of origin are essential for the development of ethnic identities. The native-born children of immigrants are brought up with a sense of group solidarity, they are socialized into the culture of the national origin group, and they often face direct social pressure from their immigrant parents to marry endogamously. Educational homogamy, on the other hand, is largely based on people's preferences for similarity with respect to the cultural outlook they have acquired on their own. Previous research has demonstrated that, independent of family background, education strongly affects people's values (Hyman and Wright, 1979) and cultural lifestyles (DiMaggio and Ostrower,

1990). As a result, people who match on education tend to confirm each other's behavior and world views and share a set of conversation topics that enhances mutual understanding (DiMaggio and Mohr, 1985). In other words, those who marry within the national origin group have an orientation toward the culture of the family of origin, while those who match on education have an orientation toward the norms and values acquired and reinforced at school.

A third difference has to do with the networks in which the young are embedded when they are searching for a spouse. Whether people marry endogamously depends on the opportunities they have to meet potential spouses within their group. If people live with their parents while searching for a spouse, they are faced with residential marriage markets that are homogeneous with respect to the characteristics of the parental generation (Eckland, 1968). Since residential areas are often ethnically segregated, the children of immigrants have more opportunity to meet spouses of the same national origin than to meet spouses of a different national background. Educational homogamy, in contrast, is facilitated by the social composition of school and work settings. Institutions of higher education have traditionally been regarded as efficient marriage markets that select people into educationally homogamous marriages. People who do not continue their schooling after graduating from high school are typically faced with marriage markets such as work settings. In comparison to the parental neighborhood, school and work settings are relatively heterogeneous with respect to family background and homogeneous with respect to education.

DATA AND MEASUREMENTS

Research on ethnic intermarriage has used two quite different measures of ethnicity. In the censuses before 1980, people were asked where they were born and—if in the United States —where their parents were born. These questions could be used to identify two generations of Americans: immigrants and their native-born children, together called the foreign stock. Subsequently, the researcher could assess the ethnic origins of the foreign stock by using the country of birth of respondents or their parents. In the 1980 census, the nativity question was replaced by an ancestry question which asked all respondents from what part of the world their "ancestors" came from, regardless of generation. The main advantage of the new question was that it allowed researchers to assess the ethnic identity of the rapidly growing native stock (Lieberson and Santi, 1985). While immigrants could still be identified by the question on nativity, without the question on parental nativity it became impossible to distinguish second and later generations. With the change in measurement, there also has been a shift

in theoretical perspective. The older nativity research directly focused on the experiences of immigrants and their children in American society, whereas the newer ancestry research is more concerned with the question of whether the white American population as a whole continues to be differentiated along lines of ethnicity. The article focuses back to the former question and analyzes the *Public Use Sample* of the 1960 census using data on nativity and country of birth of respondents and their parents (U.S. Bureau of the Census, 1962).[2]

Second generation European Americans in this study are defined as American-born persons whose father or mother was born in Europe. Since the mother's country of birth is reported only when the father is native born, single and mixed national origin could not be distinguished. Table 1 cross-classifies husbands and wives by generational status. The sample considered in subsequent analyses includes all marriages in which at least one spouse is second generation and uses marriages in which both spouses are of native stock as a reference group. Marriages between first generation Americans are excluded because without data on the time of immigration it is impossible to assess if the marriage was contracted in the United States. Because the proportion of immigrants entering the United States with a spouse varies from group to group (Pagnini and Morgan, 1990), including marriages between immigrants in the analysis would make it difficult to interpret ethnic differences in endogamy. To simplify the analysis, how the first generation mingles with the native stock is not examined.

Most of the marriages in the sample were formed during the first half of the twentieth century. Second generation European Americans constitute an important group in this period: about 25 percent of the marriages in Table 1 involve the second generation. In essence, the present study focuses on the descendants of the last wave of large-scale European immigration to the United States. The proportion of immigrants that came from Europe varied from 90 percent in the 1880s to 65 percent in the 1930s (Bouvier and Gardner, 1986). This period is also interesting because of the presence of large numbers of both "old" and "new" European immigrants. Between 1880 and 1930, about 40 percent of the European immigrants came from southern and eastern Europe (Bouvier and Gardner, 1986).

[2] In comparison to other censuses that include parental nativity, the 1960 census has several advantages. In 1960, all persons in the household had to report where their parents were born, whereas in 1940 and 1950, only the "sample line person" reported parental nativity. The 1970 census has parental nativity for all household persons, but only in the data collected with the 15% questionnaire. Because these data do not include age at marriage and marriage order, they cannot be used for comparing marriage cohorts (though age cohorts would be a reasonable alternative).

TABLE 1

CROSS-CLASSIFICATION OF HUSBANDS' AND WIVES' GENERATIONAL STATUS

Husbands	Wives			
	(1)	(2)	(3)	Total
(1) First	*13,594*	6,605	*3,519*	23,718
(2) Second	3,314	30,566	30,508	64,388
(3) Third and higher	*3,173*	24,841	259,614	287,628
Total	20,081	62,012	293,641	375,734

Note: First generation is European born. Second generation is native born of European-born father or mother. Native stock is third and higher generation (native born of native-born parents). In the few cases where the European born have native-born parents (*e.g.*, children of military servicemen), they are considered native stock. Numbers in italics are excluded from the analysis of intermarriage (*see* text).

To assess how marriage patterns have changed, synthetic marriage cohorts; *i.e.*, marriages formed in different historical periods that were still intact at the time of the census, have been compared. Three marriage cohorts are distinguished: couples married before 1930, couples married between 1930 and 1945, and couples married between 1945 and 1960.[3] Differences between cohorts should be interpreted with care. A comparison of marriage cohorts at one point in time may yield a biased picture of the historical trend because couples married in an earlier period have been exposed to the risk of marital dissolution for a longer period of time than recently married couples. For example, if marital dissolution is inversely related to homogamy and endogamy—mixed marriages being more unstable—the older cohorts will be more endogamous than the younger cohorts. Despite such disadvantages, there are several reasons why a synthetic cohort comparison is still valuable. First, in the absence of data on husbands' and wives' national origins at several different points in time—the 1940 and 1950 census, do not have data on the national origins of both spouses—synthetic cohorts are the only source of historical information. Second, most divorces and separations take place early in marriage so that selective attrition will have only modest effects on the differences between the two older cohorts. Hence, we gain confidence in the results if comparisons between the youngest two cohorts yield similar results as comparisons between the oldest two cohorts.

The analyses describe patterns and changes in the multivariate cross-classification of husbands' and wives' education and national origins. The classification of national origin groups is based on broad regions in Europe

[3] Since the 1960 census reports age at marriage only for first marriages, second and higher order marriages are excluded from the cohort comparisons.

that share a common culture and tradition. The classification follows earlier analyses of marriage patterns (Glick, 1970; Pagnini and Morgan, 1990) and covers the major distinctions between large European groups in the United States. The number of groups distinguished here is primarily set by the number of cases. Since the national origins of the spouses are cross-classified by their education, the table would become too sparse if more than eight groups were used. Educational attainment is distinguished in four categories: people with three years of high school or less, high school graduates, people with one to three years of college, and college graduates. The multivariate marriage table has 9x9x4x4 = 1,296 cells and 355,448 intact marriages and will be analyzed with loglinear models. The bivariate marriage tables are presented separately in Table 2.

ANALYSES AND FINDINGS

The two marriage tables are considered separately to develop a scale of intermarriage distances between national origin groups and a scale of intermarriage distances between educational groups. Using these scales, a multivariate loglinear model is developed that allows various aspects of spouse selection in the multivariate table. Finally, the analysis of this multivariate model for three marriage cohorts is estimated to obtain evidence on how marriage selection has changed over time.

A Scale of National Origin Groups and Educational Groups

Since national origin groups are inherently not ordered, we first need to assess the order and distances between groups empirically. Previous authors have used external measures such as Bogardus's social distance scale to rank ethnic groups (*e.g.*, Pagnini and Morgan, 1990). This approach is novel in that it uses the actual patterns of marriage selection to measure these distances. More specifically, multidimensional logmultiplicative models of association are used to develop an empirical scale of national origin groups (Clogg, 1982; Becker and Clogg, 1989). These models summarize the marriage patterns in the table with scores that represent the distances between groups. The more groups intermarry, the more similar their scores, and the smaller the distance between them. Since the degree to which groups intermarry probably depends on a multitude of similarities, distances are allowed to be multidimensional. For instance, the southern Europeans and the Irish may be close to each other because they are both predominantly Catholic, but they may be distant from each other because of language differences or because the southern Europeans belong to the new European immigrants while the Irish belong to the old European immigrants. The model measures underlying dimensions of similarity without specifying in

TABLE 2

CROSS-CLASSIFICATION OF HUSBANDS' AND WIVES' NATIONAL ORIGIN AND EDUCATIONAL ATTAINMENT

National Origins										
Husbands	Wives									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	Total
(1) Native	259,614	1,495	1,805	2,853	3,591	6,451	3,138	2,160	3,348	284,455
(2) Russia	1,932	3,401	734	842	170	268	179	59	72	7,657
(3) Poland	2,253	760	3,063	729	298	275	124	83	61	7,646
(4) Eastern Europe	3,445	859	746	2,639	402	465	194	99	148	8,997
(5) Southern Europe	4,606	224	385	495	7,881	440	246	227	150	14,654
(6) Western Europe	8,200	289	368	558	299	3,504	431	320	515	14,484
(7) Great Britain	3,751	151	124	202	163	421	619	229	241	5,901
(8) Ireland	2,505	59	92	118	167	301	217	926	102	4,487
(9) Northern Europe	3,817	78	89	147	118	522	224	107	2,065	7,167
Total	290,123	7,316	7,406	8,583	13,089	12,647	5,372	4,210	6,702	355,448

Educational Attainment					
Husbands	Wives				
	(1)	(2)	(3)	(4)	Total
(1) ≤H.S. 1–3	147,866	44,828	7,811	2,201	202,706
(2) H.S. 4	25,425	48,337	8,134	2,687	84,583
(3) College 1–3	6,622	14,961	8,406	2,971	32,960
(4) College 4+	2,687	11,190	9,922	11,400	35,190
Total	182,600	119,316	34,273	19,259	355,448

Note: Russia is the Byelorussian S.S.R., the Ukranian S.S.R., and other S.S.R., including Latvia, Estonia, and Lithuania. Eastern Europe is Austria, Bulgaria, Czechoslovakia, Hungary, and Romania. Southern Europe is Greece, Italy, Portugal, and Spain. Western Europe is Belgium, France, Germany, Iceland, Luxemburg, the Netherlands, Switzerland, and other Europe. Great Britain is England, Scotland, and Wales. Ireland is Ireland and Northern Ireland. Northern Europe is Denmark, Finland, Norway and Sweden. The first row contains couples in which the husband is native born of native parentage. The first column contains couples in which the wife is native born. The upper left cell contains couples in which both spouses are native.

FIGURE 1

INTERMARRIAGE DISTANCES BETWEEN EUROPEAN GROUPS IN THE UNITED STATES IN 1960

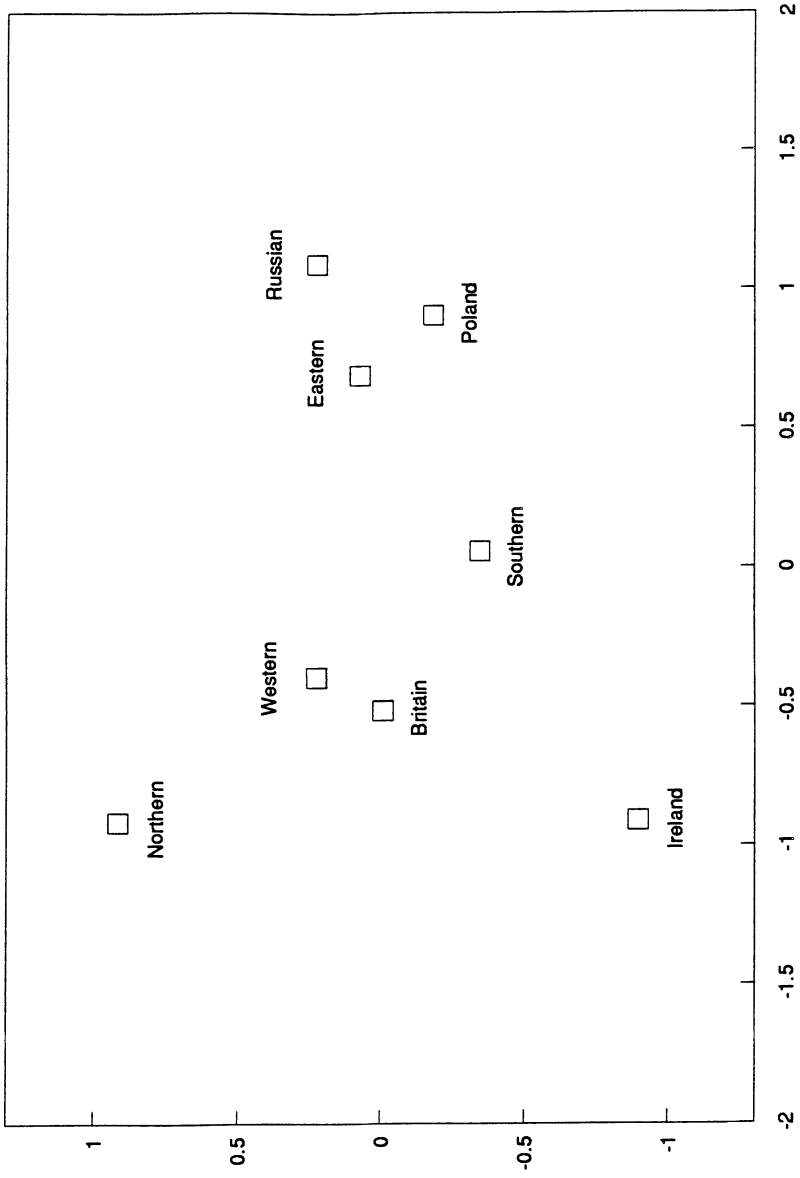


TABLE 3

SCALES FOR NATIONAL ORIGIN GROUPS AND EDUCATIONAL GROUPS

National Origin Groups	Dimension 1	Dimension 2
Russia	-.509	.161
Poland	-.423	-.132
Eastern Europe	-.322	.053
Southern Europe	-.027	-.251
Western Europe	.185	.162
Great Britain	.241	-.006
Ireland	.426	-.651
Northern Europe	.429	.664
Intrinsic Association	4.577	1.902
Educational groups		
≤H.S. 1–3	-.703	–
H.S. 4	-.197	–
College 1–3	.277	–
College 4+	.625	–
Association	2.526	–

Note: Category scores are parameter estimates of multidimensional logmultiplicative models with homogeneous row and column scores. *See* Appendix A.

advance what they represent. Scores are presented in Table 3 and Figure 1. The distances in Figure 1 can be interpreted as marriage boundaries between groups, as measured by odds ratios. More precisely, the expected ratio of the odds that group A marries with group A (rather than with group B) to the odds that group B marries with group A (rather than with group B), is equal to the antilogarithm of the squared distance between the groups. A more detailed description of the models and their estimation is presented in Appendix A.

Figure 1 can be regarded as a map of Europe in the United States: it depicts the social location of various European groups in American society as measured by their marriage choices. The first dimension of association is represented on the horizontal axis and reveals a clear boundary between East and West. This split can be interpreted in terms of religious differences. Although no census data are available on the religious composition of the foreign stock, Russians and eastern Europeans are usually taken to be Jewish, the Irish and southern Europeans are mainly Catholic, while the northwestern groups are mixed (partly Protestant, partly Catholic).[4] That

[4] For convenience, the term Russian is used to denote people from the Byelorussian S.S.R., the Ukrainian S.S.R., and other S.S.R., including Latvia, Estonia, and Lithuania.

there is so little intermarriage between the eastern groups and others probably reflects the well-documented lack of intermarriage between Jews and Christians (Glenn, 1982). This pattern reminds us of the triple melting pot, a notion which posited that the mixing of national origin groups occurred within rather than between the three main religious communities (Kennedy, 1944; Herberg, 1960). While there is a clear clustering of the three Jewish groups, this is not true for the Protestant and Catholic groups. The southern Europeans and the Irish, for example, are as far away from each other as they are from the largely Protestant or Jewish groups. The second dimension of association is represented on the vertical axis and appears to be dominated by the isolation of the northern Europeans on the north side and the Irish on the south side. That the Irish marry so rarely with other groups is consistent with the history of conflict between the Irish and various other urban immigrant groups in the nineteenth century (Sowell, 1981). If the Irish do intermarry, they are most likely to marry with the British and the southern Europeans. The former clearly reflects a language similarity, the latter probably reflects a religious similarity (both are Catholic). The location of northern Europeans is best explained in terms of their concentration in rural areas in the West North Central (Hutchinson, 1956:25). That Scandinavians are more isolated than others points to the social significance of ethnic communities in rural areas, a phenomenon that has received relatively little attention in the sociological literature on white ethnic groups.

Distances between educational groups are derived in a similar fashion, with the restriction that only one dimension of association is identified. The scores, presented in Table 3, are consistent with the hierarchical relation between educational groups. Nonetheless, the groups are not equidistant. For example, the distance between college graduates and people with some college is smaller than the other distances. Although this may be expected given the notion that colleges function as marriage markets (Eckland, 19 70; Mare, 1991), the marriage distance is not small, suggesting that differences with respect to years of schooling remain important boundaries within the college community.

A Multivariate Model of Intermarriage

The marriage table for education and national origins (including the native row and column) are considered simultaneously. To model the counts in each cell of the multivariate table, loglinear analyses are relied on. A general outline of what the models intend to do is given in the following and a more detailed explanation is provided in Appendix B. In essence, the loglinear model assumes that the prevalence of a certain marital combination is a

function of differential opportunity on the one hand and mutual selection preferences on the other. Differential opportunity refers to effects that stem from the relative size of groups in the table and effects that stem from the association between education and national origin. More specifically, by adjusting for the marginal row and column distributions of education and national origin, the model take into account that members of smaller groups have fewer opportunities to find a spouse within the group than do members of larger groups. By adjusting for the joint distributions of education and national origin, the models take into account that marrying within the national origin group is in part the result of a tendency to match on education (and vice versa). The models do not take into account that national origin groups are concentrated in different parts of the country. Although there were substantial differences in the geographic location of second generation European Americans in this period (Hutchinson, 1956), measuring the consequences of these differences would require analyses of specific regions and local communities, something that is beyond the scope of this study.[5]

After taking into account effects of differential opportunity, as defined here, the model distinguishes several kinds of selection. First, the tendency to marry within rather than outside the group (*i.e.*, ethnic and educational endogamy), is distinguished from the tendency to marry people that are close rather than distant when marrying exogamously (*i.e.*, ethnic and educational homogamy). Endogamy is measured by including parameters for each diagonal cell in the two marriage tables. Homogamy is measured by using the category scores given in Table 3 and estimating three coefficients of scaled association, two for the interaction between husband's and wife's national origins and one for the interaction between husband's and wife's education (*cf.* Hout, 1984). The model also allows me to describe endogamy and homogamy in combination with another selection process. The process of assimilation is not just a matter of intermarriage among the foreign stock, but also a question about how often the children of immigrants marry into the native stock. Though relevant for the process of assimilation, this selection process is conceptually different from the process of selecting a spouse within the foreign stock. The former is a matter of generational boundaries, the latter is a matter of ethnic boundaries (within

[5] When the geographic distribution of groups were taken into account, boundaries between national origin groups would actually be weaker. Empirically controlling for geographic segregation also raises conceptual difficulties. For example, people who are least likely to identify with their national origin group may be most likely to move out of the parental neighborhood. If this form of selective migration occurs, geographic segregation can hardly be considered a pure constraint on marriage choice.

a generation). So called merge parameters are included in the model that measure how frequently second generation Americans marry a spouse of native stock.[6] Because no data are available on the national origins of the native stock, it is not possible to determine if people that merge marry within their national origin group. The full model does not fit the data according to conventional statistical criteria (L2 is 4,628 with 1,187 degrees of freedom). Because the sample size is large, it is difficult to find a theoretically meaningful model that will fit. The Bayesian Information Coefficient (BIC), which provides an indication of fit independent of sample size, is strongly negative (-10,543), showing that the model is more plausible than the saturated model (Raftery, 1986). Parameter estimates are presented in Table 4.

To what extent do second generation Americans marry within their national origin group if they marry a spouse of foreign stock? To answer this question, we focus on the diagonal parameters. The antilogarithm of these parameters can be interpreted as the ratio of the observed number of marriages in the relevant diagonal cell divided by the number expected given a model of marginal distributions and association (Goodman, 1969). In exponential form, all diagonal parameters are greater than one, showing that endogamy is higher than expected. We also note, however, that endogamy varies significantly across groups. A model that constrains endogamy of national origin groups to be the same fits significantly worse than the present model (BIC is -7,004 versus -10,543). An alternative way to look at endogamy is to see what the parameter estimates imply for the percentage of husbands (or wives) who marry within the group. These figures are derived from a table of expected cell frequencies that are calculated using the parameter estimates in Table 4 while assuming that the marginal effects for different categories of a given variable are the same. This allows me to compare endogamy percentages between groups as implied by endogamy and association parameters, net of differences in relative group size.

Endogamy is strongest among the children of southern and northern European immigrants (81.2% and 72.5%). Intermediate levels of endogamy are observed for Russia (60.9%), Poland (56.4%) and Ireland (59.6%). As can be expected, the least endogamous groups are Western Europe (40.4%) and Great Britain (32.4%). That Russian and southern European Americans have a strong tendency to marry within their national origin group has been observed in the literature before and is consistent with the fact that these groups typically lived in ethnically homogeneous communities in urban

[6] Analyses of generalized residuals indicate that with few exceptions—southern European women being less likely to merge than southern European men and Polish women being more likely to merge than Polish men—this tendency can be assumed to be symmetric for husbands and wives.

TABLE 4
PARAMETER ESTIMATES OF MARRIAGE SELECTION AMONG SECOND GENERATION EUROPEAN AMERICANS

Endogamy Parameters		
Russia	1.249	(.037)
Poland	1.447	(.037)
Eastern Europe	1.037	(.035)
Southern Europe	3.285	(.037)
Western Europe	1.378	(.034)
Great Britain	.984	(.055)
Ireland	.608	(.082)
Northern Europe	1.147	(.071)
≤H.S. 1–3	.679	(.037)
H.S. 4	.461	(.021)
College 1–3	-.007	(.030)
College 4+	.727	(.038)
Association		
National origin		
First dimension	4.594	(.080)
Second dimension	1.903	(.111)
Education	2.185	(.037)
Merge parameters		
Native	.000	(–)
Russia	-1.542	(.024)
Poland	-1.385	(.023)
Eastern Europe	-1.279	(.020)
Southern Europe	-.607	(.021)
Western Europe	-.512	(.018)
Great Britain	-.606	(.023)
Ireland	-.694	(.027)
Northern Europe	-.373	(.024)
N	355,461	
Df	1,187	
BIC	10,543	

Note: Standard errors between parentheses. N is slightly different from that in Table 2 because .01 is added to each cell.

areas that limit opportunities to marry exogamously. In addition, several authors have observed a strong emphasis on family cohesion and group solidarity in these communities, which possibly further enhances endogamy. That northern Europeans are as endogamous as Russians and southern Europeans again suggests that concentration in rural communities puts similar constraints on exogamy as ethnic segregation in urban communities.

To what extent do second generation European Americans marry within their educational group? Educational endogamy is especially strong among college graduates and people with less than a high school degree, the two extremes of the distribution (65.1% and 70.8%, respectively). The levels for high school graduates and college dropouts are substantially lower; *i.e.*, 36.5 percent and 28.1 percent. In part, this pattern may be explained by the hierarchical nature of the schooling process. If members of the group at the top want to marry exogamously, they can only select among lower groups. If members of the group at the bottom want to marry exogamously, they can only be selected by higher groups. Endogamy among college graduates also reflects the fact that they are embedded in educationally homogeneous settings shortly before they marry. To appreciate the significance of educational endogamy, it is instructive to compare the percentages of ethnic and educational groups. For instance, the percentage of college graduates marrying within the group is 65.1 percent, which is greater than the figure for the Russian group. In the past, Russian Americans have often been regarded as a group that is socially isolated from other white ethnic groups in American society. As far as their marriage choices are concerned, the present findings suggest that college graduates are just as isolated as Russian Americans. More generally, the average percentage married endogamously is about as high for national origin groups (55%) as it is for educational groups (51%). Assuming that endogamy is an appropriate indicator of social closure, it appears that the marriage patterns of second generation European Americans are as closed with respect to education as they are with respect to national origin.

The association parameters summarize the marriage patterns in the off-diagonal part of the marriage tables. Since the category scores that were derived previously are normalized (*see* Appendix A), these coefficients can be regarded as standardized measures of association. The relative distance between groups is captured by the category scores, the overall distance between groups is captured by the association coefficient. The stronger the coefficient, the greater the overall distance and the lower the degree of intermarriage between groups. Table 4 shows that the association between the spouses' national origins is stronger than the association between their levels of education. This shows that intermarriage between national origin

groups that are a given unit apart on the national origin scale is less common than intermarriage between educational groups that are a given unit apart on the educational scale. Because the two characteristics have different numbers of categories, however, it is difficult to interpret differences in association coefficients directly. One way of solving this is to compare the average expected log odds ratio for all pairs of national origin groups to the average expected log odds ratio for all pairs of educational groups. Given the normalizing constraints on scores used here, this can be calculated using the formula $\phi\ 2/(c\text{-}1)$, where ϕ is the association coefficient and c is the number of categories.[7] The average log odds ratio for ethnic pairs is 1.856, while the average for educational pairs is 1.457. This suggests that among second generation European Americans, national differences are somewhat more salient impediments to intermarriage than educational differences.

Is there a generational boundary as well? Table 4 shows that all merge parameter estimates are negative. If there were no social distance between the second generation and the native stock, we would expect the children of immigrants to be just as likely to marry a native spouse as native Americans are. That the merge parameters are negative shows that they are less likely to marry a native spouse than persons of native stock. We also observe that merge tendencies vary across groups. A model that constrains merge tendencies to be the same for all groups fits significantly worse than the current model (BIC is -7,437 and -10,543 respectively). Merging with the native population is especially rare among people from Russia, Poland and eastern Europe. For instance, the odds that a native marries the child of Russian-born parents rather than a native are .21 ($e^{-1.542}$). In contrast, the odds that a native marries a western European are substantially higher; *i.e.*, .60 ($e^{-.512}$).

[7] For a square rxc contingency table with homogeneous row and column scores, this can be shown as follows. The normalizing constraints on scores are $\sum_i X_i = 0$ and $\sum_i X^2 = 1$. The sum of squared differences between scores is:

$$s\sum_{ij} (X_i - X_j)^2 = 2\,[\,(r-1)\sum_i X_i^{\,2} - \sum_{i \neq j} X_i X_j\,] \qquad (1)$$

The sum of crossproducts in the second term can be written as $\sum_i [\,X_i\,(\sum_i X_i - X_i)\,]$. Because $\sum_i X_i = 0$ by definition, the sum of crossproducts is $-\sum_i X_i^{\,2}$. Given that $\sum_i X_i^{\,2} = 1$ at (1) can now be written as,

$$\sum_{ij} (X_i - X_j)^2 = 2\,[\,(r-1)\sum_i X_i^{\,2} + \sum_i X_i^{\,2}\,] = 2r \qquad (2)$$

The log odds ratio is defined by the model as $\log\ (F_{ii}\,F_{jj} / F_{ij}\,F_{ij}) = \phi(X_i - X_j)^2$. The sum of unique log odds ratios is $1/2 \sum_{ij} \phi(X_i - X_j)^2 = \phi r$. Since there are $1/2\,(rc - c)$ such log odds ratios, the average is $\phi r / 1/2\,(rc - r) = \phi 2 / (c - 1)$.

Why does the boundary between the second generation and the native stock differ across groups? On the one hand, the native stock in this period is disproportionally composed of people who have the "older" ancestries (*e.g.*, British or German roots). Assuming that people prefer similarity in ancestry, regardless of generation, the children of old European immigrants have more opportunity than the children of new European immigrants to marry a spouse of native stock. On the other hand, old ancestry groups in the native stock are on average more generations away from the second generation than new ancestry groups in the native stock. If there is a tendency to marry people of the same ancestry that also are close in generation, the children of old European immigrants will be less likely to merge than the children of new European immigrants. For first and second generation Dutch Americans in this period, for example, it is relatively difficult to find a partner of Dutch ancestry in the native stock who is still strongly oriented toward the Netherlands. While both hypotheses are plausible, the data clearly do not support the generational argument. Second generation southern and eastern Europeans merge less frequently than others, suggesting that the newness of an immigrant group in American society strengthens the boundary between the second generation and the native stock.

Elaborations by Marriage Cohort

How have these marriage patterns changed over time? This question is answered by estimating the multivariate model separately for each cohort and computing T-values that test whether cohort differences are significant (Table 5). To simplify matters, it is assumed the scales of national origin and educational groups have not changed. Table 5 shows that there are significant cohort differences in ethnic endogamy. In general, marriages within the national origin group are more common in the older cohorts than in the younger cohorts. Figure II presents the percentages married endogamously that are expected given the assumption that marginal effects are equal. For all the new European groups, endogamy percentages decrease across cohorts. Decreases occur between the first and second cohort as well as between the second and third. If selective attrition operates, it would affect differences between the later cohorts more than differences between the earlier cohorts. That changes are more or less continuous suggests that attrition is not exceptionally selective with respect to endogamy. In line with analyses of ancestry groups in the 1980 census (Lieberson and Waters, 1988), cohort differences are less systematic and somewhat weaker for the old European groups. Nonetheless, the general pattern here is toward decreasing endogamy as well. For reasons that are not immediately

TABLE 5

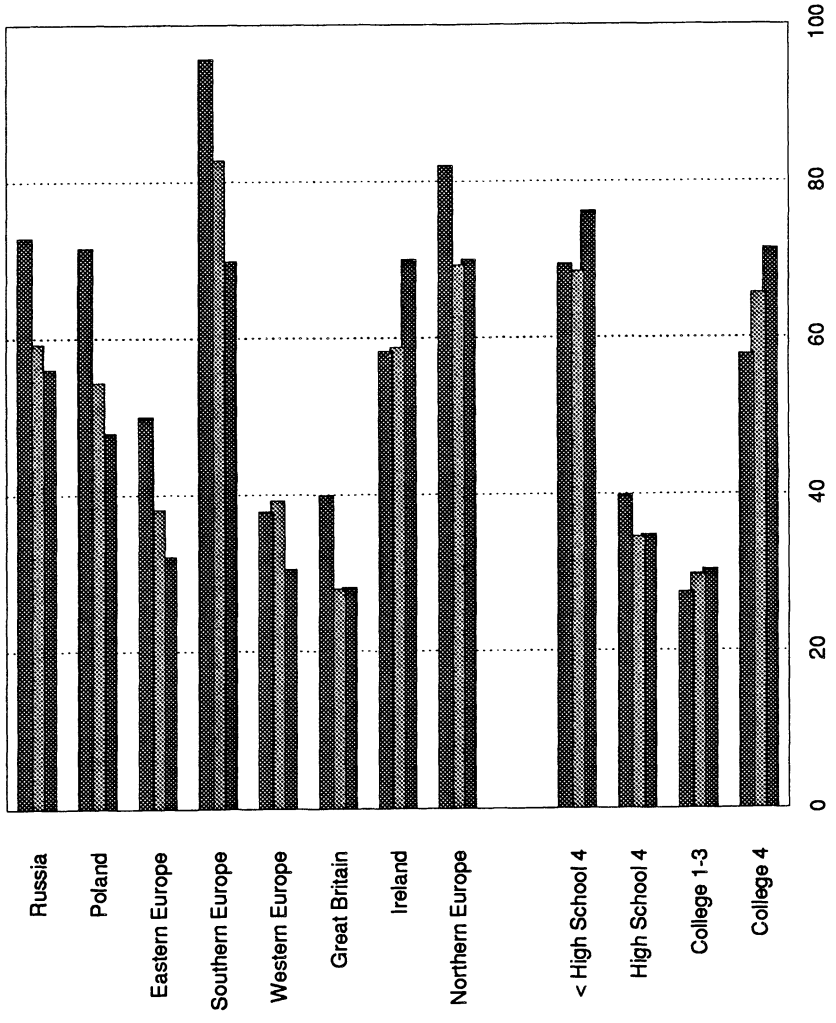
PARAMETER ESTIMATES OF MARRIAGE SELECTION BY MARRIAGE COHORT

Parameter	(a) <1930		(b) 1930–45		(c)1945–60		T_{a-b}	T_{b-c}
Endogamy								
Russia	1.653	(.092)	1.198	(.058)	1.188	(.071)	4.18	.11
Poland	2.031	(.093)	1.377	(.056)	1.194	(.067)	6.02	2.10
Eastern Europe	1.498	(.079)	1.060	(.055)	.835	(.067)	4.55	2.60
Southern Europe	4.922	(.117)	3.399	(.061)	2.656	(.062)	11.54	8.54
Western Europe	1.256	(.060)	1.329	(.066)	.956	(.093)	-.82	3.27
Great Britain	1.287	(.091)	.783	(.108)	.811	(.137)	3.57	-.16
Ireland	.411	(.172)	.626	(.141)	1.115	(.165)	-.97	-2.25
Northern Europe	1.564	(.127)	1.053	(.127)	1.070	(.181)	2.85	-.08
≤H.S. 1–3	.954	(.080)	.556	(.047)	.008	(.044)	4.29	8.51
H.S. 4	.620	(.066)	.374	(.036)	.344	(.033)	3.27	.61
College 1–3	-.004	(.079)	.071	(.053)	(.003)	(.048)	-.79	.95
College 4+	.670	(.122)	.740	(.069)	.573	(.057)	-.50	1.87
Association								
National Origins								
First dimension	5.435	(.181)	4.518	(.132)	3.843	(.169)	4.09	3.15
Second dimension	1.951	(.226)	1.819	(.190)	2.059	(.259)	.45	-.75
Education	1.575	(.100)	1.819	(.190)	2.059	(.259)	-5.37	-8.00
Merge								
Russia	-2.505	(.087)	-1.720	(.042)	-1.239	(.041)	-8.13	-8.20
Poland	-2.118	(.079)	-1.489	(.049)	-1.234	(.038)	-6.77	-4.11
Eastern Europe	-1.969	(.059)	-1.297	(.033)	-1.083	(.034)	-9.94	-4.52
Southern Europe	-1.159	(.079)	-.807	(.037)	-.560	(.033)	-4.04	-4.98
Western Europe	-.564	(.035)	-.353	(.032)	-.585	(.039)	-4.45	4.60
Great Britain	-.460	(.045)	-.579	(.041)	-.633	(.048)	1.96	.86
Ireland	-.636	(.056)	-.678	(.048)	-.559	(.057)	.57	-1.60
Northern Europe	-.331	(.050)	-.308	(.042)	-.206	(.057)	-.35	-1.44
N	63,770		98,106		124,809			
Df	1,187		1,187		1,187			
BIC	-11,628		-11,428		-12,053			

Note: Standard errors between parentheses.

FIGURE 2

EXPECTED PERCENTAGES MARRYING ENDOGAMOUSLY



clear, the Irish are an exception. They have become more endogamous between the second and the third cohort. The overall pattern of findings is consistent with cohort differences in the extent to which second generation Americans mix with other groups if they marry outside their group. The first and most important dimension of association between husband's and wife's national origins has decreased with 17 percent between the two oldest cohorts, and with 15 percent between the youngest cohorts. Differences in the second and less important dimension are insignificant, suggesting that the isolation of the Irish and Scandinavians remains strong. Similar differences in the association coefficients are found when the scales of national origin groups and educational groups are allowed to vary across cohorts.[8]

Differences between cohorts with respect to educational homogamy reveal more or less the opposite pattern. In contrast to the association between husband's and wife's national origins, the association between their levels of education has increased with 15 percent and 13 percent respectively. When the scales of educational groups are allowed to vary across cohorts, differences are in the same direction and somewhat stronger.[9] When changes in the diagonal parameters are considered in combination with changes in association (Figure II), only small differences between cohorts in the percentages who are married within their educational group are observed. The exception is the group of college graduates: they have become more endogamous. We also notice that the decrease in the endogamy parameter for the lowest educational group in Table 5 is offset by the increase in the association coefficient. There is little change in the percentage of this group who marry endogamously (Figure II). Overall, in the younger cohorts, husbands and wives resemble each other more in their level of education than they do in the older cohorts. In combination with the findings on ethnic intermarriage, this leads me to conclude that there has been a shift from national origin to education in the marriage choices of second generation European Americans.

The merge parameters, finally, show that the boundary between the second generation and the native stock has weakened, especially for the new national origin groups. This finding can be explained in part by the changing composition of the native stock. For instance, the relative number of third and higher generation Americans of eastern European ancestry has increased over time, implying that second generation eastern European

[8] The association in the first dimension decreases with 29% and 15%, and the association in the second dimension decreases with 46% between the oldest and the middle cohort, and then remains stable.

[9] The association increases from 1.58 to 2.20, and from 2.20 to 3.44.

Americans in later periods had more opportunities to marry those of similar ancestry in the native stock. This also raises the question of how to interpret the decrease in endogamy in the foreign stock. If second generation Americans that merge marry a spouse in the native stock who has the same ancestry, does this mean that there has been no decline in ethnic endogamy for the second generation in general? In principle, it is possible that the decrease in endogamy for second generation Americans who marry within the foreign stock is offset by an increase in endogamy for second generation Americans who marry into the native stock. Without data on the ancestry of the native stock, this possibility cannot be ruled out. Nevertheless, previous cross-sectional analyses show that intermarriage is more common in the third and higher generations than in the second generation (Alba, 1988), in line with the hypothesis that identification with an ethnic subculture declines across generations. Hence, it can be expected that second generation Americans who merge into the native stock are less likely to marry endogamously than second generation Americans who marry into the foreign stock. If this assumption is valid, we can conclude that there has been a decline in endogamy for the entire second generation, regardless of whether they marry into the foreign or the native stock. Be that as it may, the weakening of the generational boundary observed here is significant in its own right. When generational homogamy is declining, it is less and less likely that the cultural heritage of a specific foreign country remains a powerful source of group identification in American society.

CONCLUSION

That the role of nationality in marriage selection has become weaker over time, in particular for the new European groups, is consistent with earlier analyses of intermarriage that use ethnic ancestry data. Nonetheless, most studies of trends have focused on the entire population so that is unclear to what extent the declining role of ethnicity is due to a generational shift; *i.e.*, an increasing number of third and later generation Americans in the population. The question in this study is how the experiences of the second generation differed across time. Using synthetic marriage cohorts as a proxy for change, I show that second generation Americans increasingly marry spouses in the native stock and that if they marry into the foreign stock, they are more and more likely to marry exogamously and to mix freely with other national origin groups. These findings demonstrate that the declining role of white ethnicity in American society, as documented in previous studies, is not simply the result of a generational shift.

That education has become a more salient boundary in the marriage choices of second generation European Americans is consistent with the

trend in educational homogamy for the entire population (Mare, 1991; Kalmijn, 1991). The shift from national to educational boundaries shows that it is not so much the degree of selectivity that changes, but rather the basis on which people select each other that has changed. This change in criteria for evaluation and selection in the social sphere is particularly interesting when we consider the position of the second generation as an intermediary between cultures. In the literature, it has often been noted that the second generation is faced with the difficult problem of being loyal to two different worlds, the world of their parents, which is partly oriented toward a foreign country, and the world into which they were born, a world dominated by American norms and values. The changes in marriage selection observed here are consistent with the notion that this conflict of loyalties has been resolved in favor of the latter world. As far as their marriage choices are concerned, immigrant children have increasingly found sources of social belonging in their expected socioeconomic status in American society rather than in their historical roots abroad.

This analysis focused on a specific period in American history, a period that was dominated by immigration from Europe. It remains to be seen whether the conclusions also apply to the more recent period that is dominated by immigration from Asia and Latin America. Several studies have focused on the marital assimilation of new immigrants (*e.g.*, Jiobu, 1988), but comparisons with other groups have not yet been made. An important question in this respect is whether the endogamous closure of "new" European ethnic groups in the beginning of this century is similar to the endogamous closure of Asian and Hispanic groups at the end of this century. Such an historical comparison could provide new insights in the question of whether American society has changed its response to the influx of new ethnic groups during its continuing history of international migration.

APPENDIX A: MULTIDIMENSIONAL LOGMULTIPLICATIVE MODELS

Following Clogg (1982) the logmultiplicative model for the expected cell counts F_{ij} and F_{kl} can be written as follows:

$$\log F_{ij} = \lambda + \lambda_i + \lambda_j + \sum_{m=1}^{m} \mu_{mi}\ \mu_{mj}\ \xi_m \tag{1}$$

$$\log F_{kl} = \lambda + \lambda_k + \lambda_l + V_k V_l\, \phi \tag{2}$$

where i stands for wife's nativity, j for husband's nativity, k for wife's education, and l for husband's education. The first three parameters in each model adjust for the sample size and the marginal row and column distributions. The last parameters model the interaction between rows and columns. The interaction between husband's and wife's national origins is allowed to be multidimensional. μ_{mi} are the scores for ethnic groups in the mth dimension and ξ_m is the coefficient of intrinsic association in the mth dimension. These parameters decompose the log odds ratio for each 2x2 table in the larger table into a common part and a category-specific part. Given the model stated, the expected log odds ratio for any 2x2 subtable of rows and columns is:

$$\Theta = \log\left(F_{ij}\, F_{(i+c)(j+c)} \,/\, F_{i(j+c)}\, F_{(i+c)j}\right)$$

$$= \sum_{m=1}^{m} \left(\mu_{mi} - \mu_{m(i+1)}\right)\left(\mu_{mj} - \mu_{m(j+1)}\right)\xi_m \tag{3}$$

When there is one dimension ($m=1$), each log odds ratio is a multiplicative function of the distance between column scores, the distance between row scores, and the association coefficient. When there are more dimensions, the products are summed across dimensions (the dimensions are orthogonal). The difference between category scores, weighted by the association coefficient, can be interpreted as the social distance that impedes groups from intermarrying. The same model is used for educational groups, with the restriction that the association is assumed to be uni-dimensional. Given the small number of educational groups, only one dimension of association can be identified. Nonetheless, there are no compelling reasons for believing that this association will be multidimensional. In the recent past, logmultiplicative models have been applied to patterns of friendship choice (Yamaguchi, 1990) and typologies of labor market experience (Clogg, Eliason and Wahl, 1990).

Since the aim of the scaling procedure is to develop a measure of the distances between groups, I assume that row and column scores are equal and fit the diagonal cells perfectly. For purposes of identification, the scores are constrained to have a mean of 0 and a sum of squares of 1. The choice of these weights ensures that estimates are independent of the marginal distributions and comparable across tables (Becker and Clogg, 1989). I used the program CDAS to calculate the scores (Eliason, 1989). The multidimensional procedure of this program does not facilitate constraining row and column scores to be equal. In order to fit a homogeneous model for the national origin table, I imposed symmetry on the table by transposing the table, adding the original and transposed table, and dividing cell frequencies by 2. This approach may affect the estimates of the category scores because it artificially makes the row marginals equal to the corresponding column marginals. To test how much bias this introduces, homogeneous row and column scores estimated from the symmetric table were compared with heterogeneous row and column scores estimated from the original table. The results indicate that a) the differences between row and corresponding column scores in the heterogeneous model are minor and b) the homogeneous category scores are virtually equal to the average of the corresponding row and column scores in the heterogeneous model. These findings strongly suggest that results would be the same had a homogeneous model fit on the original table.

Since the sample size is extremely large while the bivariate marriage tables have few degrees of freedom, only the saturated model will fit in a statistical sense. An alternative and nonstatistical way to evaluate the scales is to calculate the index of dissimilarity between observed and expected cell frequencies. This index can be interpreted as the relative number of cases that need to be reclassified in order to make the model fit perfectly. For the table of husband's and wife's national origins, the model with one dimension of association fits well: the index of dissimilarity is 1.9 percent. Adding a second dimension of association leads to a somewhat better fit (the index of dissimilarity drops to 10%). Since the second dimension is substantively interesting, the two-dimensional model was used. For educational groups, only one dimension of association can be identified.

Distances between national origin groups are depicted in Figure I, with scores in the first dimension on the horizontal axis and scores in the second dimension on the vertical axis. Since the association coefficient is stronger for the first dimension than for the second, the scales of the axes were adjusted by a factor $\sqrt{\xi_m}$ to make vertical and horizontal distances comparable (Eliason, 1989). After the adjustment (and given that row and column scores are equal), the horizontal distance between groups equals,

$\sqrt{\xi_1}\ (\mu_{1i} - \mu_{1(i+1)})$, while the vertical distance between groups equals $\sqrt{\xi_2}\ (\mu_{2j} - \mu_{2(j+1)})$. Hence, the squared distances are equal to the expected log odds ratio in each dimension. The total expected log odds ratio is $[\xi_1 (\mu_{1i} - \mu_{1(i+1)})^2 + \xi_2 (\mu_{2j} - \mu_{2(j+1)})^2]$, which, following the Pythagorean theorem, is equal to the squared direct distance between groups.

APPENDIX B: MULTIVARIATE LOGLINEAR MODEL

The data consist of observed counts for the cells in the multivariate marriage table. Counts are represented by n_{ijkl}, where i and j stand for husband's and wife's national origins and k and l stand for husband's and wife's education. The observed n_{ijkl} follow a multinomial distribution, with $E(n_{ijkl}) = m_{ijkl}$. The loglinear model for the expected cell counts is as follows:

$$\log m_{ijkl} = \lambda + \lambda_i + \lambda_j + \lambda_k + \lambda_l + \lambda_{ik} + \lambda_{jl} + \delta_i + \delta_k + m_i + i_1 j_1 \xi_1 + i_2 j_2 \xi_2 + k\, l\, \phi \qquad (1)$$

where $\delta_i = 0$ if $i \neq j$, $\delta_i = 0$ if $i = j = 1$, $\delta_k = 0$ if $k \neq l$, $m_i = 0$ if $i \neq 1$ and $j \neq 1$, and $m_i = 0$ if $i = j = 1$. Note that category $i = 1$ and $j = 1$ are native stock. The λ parameters are controls: (i-1) and (j-1) parameters to adjust the marginal distributions of husband's and wife's national origins; (k-1) and (l-1) parameters to adjust for that of wives. The conventional restrictions apply, *e.g.*, $\Sigma\lambda; = 0$, etcetera. The marriage selection parameters for national origin are as follows: m_i are merge parameters, δ_i are endogamy parameters, and $i_m j_m \xi_m$ describes homogamy, where i_m and j_m are the two sets of fixed category scores (given in Table 3) and ξ_m are the two association coefficients to be estimated. Models are estimated using SPSS-Loglinear which uses the Newton-Raphson algorithm for maximizing the log likelihood. The number of parameters is 109, there are 4x4x9x9 = 1,296 cells, so that the model has 1,187 degrees of freedom (*i.e.*, 1,296–109). Since the focus is on the second generation, the interaction between husband's and wife's education (*i.e.*, λ_{kl}) is fitted perfectly when both husband and wife are of native stock. Hence, the parameter estimates for educational homogamy and educational endogamy only pertain to couples in which one or both spouses are of the second generation.

REFERENCES

Alba, R. D.
1988 "Cohorts and the Dynamics of Ethnic Change." In *Social Structures and Human Lives*. Edited by M. W. Riley. Beverly Hills: Sage. Pp. 211–228.

Alba, R. D. and R. M. Golden
1986 "Patterns of Ethnic Marriage in the United States," *Social Forces*, 65:202–223.

Aronowitz, M.
1984 "The Social and Emotional Adjustment of Immigrant Children: A Review of the Literature," *International Migration Review,* 182:237–257.

Becker, M. P. and C. C. Clogg
1989 "Analysis of Sets of Two-Way Contingency Tables Using Association Models," *Journal of the American Statistical Association,* 84:142–151.

Bouvier, L. F. and R. W. Gardner
1986 "Immigration to the U.S.: The Unfinished Story," *Population Bulletin,* 41:3–51.

Clogg, C. C.
1982 "Using Association Models in Sociological Research: Some Examples," *American Journal of Sociology,* 88:114–134.

Clogg, C. C., S. R. Eliason, and R. J. Wahl
1990 "Labor Market Experiences and Labor-Force Outcomes," *American Journal of Sociology,* 95:1536–1576.

DiMaggio, P. and J. Mohr
1985 "Cultural Capital, Educational Attainment, and Marital Selection," *American Journal of Sociology,* 90:1231–1261.

DiMaggio, P. and F. Ostrower
1990 "Participation in the Arts by Black and White Americans," *Social Forces,* 68:753–778.

Drachsler, J.
1921 *Intermarriage in New York City.* New York: Columbia University.

Eckland, B. K.
1968 "Theories of Mate Selection," *Eugenics Quarterly,* 15:71–84.

Eliason, S. R.
1989 *The Categorical Data Analysis System.* User's Manual. Version 3.00A.

Glenn, N. D.
1982 "Interreligious Marriage in the United States: Patterns and Recent Trends," *Journal of Marriage and the Family,* 44:555–566.

Glick, P. C.
1970 "Intermarriage among Ethnic Groups in the United States," *Social Biology,* 17:292–298.

Goodman, L. A.
1969 "How to Ransack Social Mobility Tables and Other Kinds of Cross-Classification Tables," *American Journal of Sociology,* 75:1–40.

Gordon, M. M.
1964 *Assimilation in American Life.* New York: Oxford University Press.

Herbert, W.
1960 *Protestant, Catholic, Jew.* New York: Anchor Books.

Hout, M.
1984 "Status, Autonomy, and Training in Occupational Mobility," *American Journal of Sociology,* 89:1379–1409.

Hutchinson, E. P.
1956 *Immigrants and Their Children, 1850–1950.* New York: Wiley.

Hyman, H. H. and C. R. Wright
1979 *Education's Lasting Influence on Values.* Chicago: University of Chicago Press.

Jiobu, R. M.
1988 *Ethnicity and Assimilation.* Albany: State University of New York Press.

Kalmijn, M.
1991 "Shifting Boundaries: Trends in Religious and Educational Homogamy," *American Sociological Review,* 56:786–800.

Kennedy, R. J. R.
1944 "Single or Triple Melting Pot? Intermarriage Trends in New Haven, 1870–1940," *American Journal of Sociology,* 48:331–339.

Lieberson, S. and L. Santi
1985 "The Use of Nativity Data to Estimate Characteristics and Patterns," *Social Science Research,* 14:31–56.

Lieberson, S. and M. C. Waters
1988 *From Many Strands: Ethnic and Racial Groups in Contemporary America.* New York: Russel Sage.

Mare, R. D.
1991 "Five Decades of Educational Assortative Mating," *American Sociological Review,* 56:15–32.

Pagnini, D. L. and S. P. Morgan
1990 "Intermarriage and Social Distance among U.S. Immigrants at the Turn of the Century," *American Journal of Sociology,* 96:405–432.

Raftery, A. E.
1986 "Choosing Models for Cross-Classifications," *American Sociological Review,* 51:146–147.

Sowell, T.
1981 *Ethnic America: A History.* New York: Basic Books.

Ultee, W. C. and R. Luijkx
1990 "Educational Heterogramy and Father-to-Son Occupational Mobility in 23 Industrial Nations: General Societal Openness or Compensatory Strategies of Reproduction," *European Sociological Review,* 6:125–149.

U.S. Bureau of the Census
1962 *U.S. Censuses of Population and Housing: 1960. Description and Technical Documentation.* Washington, D.C.: U.S. Government Printing Office.

Yamaguchi, K.
1990 "Homophily and Social Distance in the Choice of Multiple Friends," *Journal of the American Statistical Association,* 85:356–366.