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1962 to 1989**

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WHERE EAST MEETS WEST: ETHNIC INTERMARRIAGE IN THE FORMER YUGOSLAVIA, 1962 TO 1989*

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I examine ethnic intermarriage in the former Yugoslavia to determine the prevalence of exogamy there and if exogamy has increased since World War II. A better understanding of this problem may offer important insights into the current events in the former Yugoslavia. Using marriage registration data, I apply log-linear models to distinguish the effects of changes in the marginal distribution of spouses' traits from patterns that reflect the association between these traits. The results show that the widespread perception that intermarriage occurred frequently is an exaggeration—over the last three decades there has been no clear increase in the rates of intermarriage. Further, social barriers have hindered interactions (and intermarriage) among three cultural traditions present in the former Yugoslavia—a Western tradition among Slovenes and Croats, who have been under Austro-Hungarian rule and are predominantly Catholic; an endemic Balkan cultural tradition among Serbs, Montenegrins, and Macedonians, who have been part of the Ottoman Empire and are predominantly Eastern Orthodox; and a Middle-Eastern cultural tradition among most of the Islamic populations.

Sociologists generally treat intermarriage as part of the larger issue of social structure and intergroup relations, assuming that it is a primary cause, as well as an indicator, of social and cultural integration (Merton [1941] 1972; Blau, Blum, and Schwartz 1982; Labov and Jacobs 1986; Pagnini and Morgan 1990). This reasoning assumes that intermarriage is not likely to take place when social and cultural boundaries are rigid; when exogamy does occur, however, it erodes these boundaries faster than any other social process. Hence, in the American sociological literature, intermarriage is usually associated with the metaphor of the “melting pot” (Bernard 1980; Lieberman and Waters 1988).

I examine ethnic intermarriage in the former Yugoslavia, an example that appears to contradict conventional sociological wisdom. It is popularly believed that ethnic intermarriage in Yugoslavia increased after World War II and that exogamous marriages are now common. These notions were in accord with the official position of the former Yugoslavia's leadership, which claimed that social integration was taking place in the country. Media accounts have supported this view, painting pictures of pervasive ethnic intermarriage. For example, an article in the *Los Angeles Times* was titled “Thousands of Mixed Families Caught in Yugoslavia's Bitter Ethnic Divide” (21 July 1991:A4); the *Washington Post* published material on the subject under the headline “War Takes Toll on Serbo-Croatian Couples” (4 August 1991:A33), which was later reprinted with slight modifications in the *Philadelphia Inquirer* under the title “Where Spouses Can Wind Up in Opposing Armed Camps” (7 August 1991:A03). In addition, the results of several studies of ethnic exogamy in Yugoslavia have indicated that intermarriage has been on the rise (Petrovic [1966] 1970, 1986a; Bromlei and Kashuba 1982). But if intermarriage really had increased, if mixed marriages have become common, and if exogamy is an indicator of social integration, why then did the former Yugo-

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slavia disintegrate so quickly and so convulsively?

BACKGROUND

The republics that constituted what used to be Yugoslavia were long dominated by outside powers: Ottoman Turkey ruled over the territories south of the Sava-Danube line, while the Austro-Hungarian Empire controlled the territories to the north; the coastlands, including the independent city-state of Ragusa (what now is Dubrovnik) were under strong Venetian influence. Caught up in the waves of nationalism that spread over Europe in the nineteenth and early twentieth centuries, the six republics which later formed Yugoslavia—Bosnia-Herzegovina, Croatia, Macedonia, Montenegro, Serbia (which includes two autonomous provinces: Kosovo and Vojvodina), and Slovenia—achieved independence at various times between the last quarter of the nineteenth century and World War I. Foreign domination complicated an already diverse ethnic structure that was reinforced by centuries-old feuds and tensions. Cross-cutting the ethnic map in this region are three cultural traditions: a Western tradition among Slovenes and Croats, who have been under Austro-Hungarian rule and are predominantly Catholic; an endemic Balkan cultural tradition among Serbs, Montenegrins, and Macedonians, who have been part of the Ottoman Empire and are predominantly Eastern Orthodox; and a Middle-Eastern cultural influence among most of the Islamic populations in the former Yugoslavia (Albanians, Turks).¹

Politicians and scholars who favored the idea of pan-Slavism, as well as the so-called "Yugoslav movement" of the late nineteenth and early twentieth centuries, expected linguistic similarities and commonalities of historical experience to submerge ethnic rivalries. This position also had wider popular resonance (for a comprehensive discussion of the origins and the manifestations of the national question in Yugoslavia, see Banac 1984). During World War II the Communists sought support by promising self-determination for minorities and

greater autonomy for the republics. Once in power, however, they emphasized "proletarian internationalism" and the goal of a future society without classes and boundaries (for a discussion of the Marxist views on ethnicity and ethnic policies see Davis 1978; Connor 1984; Stam 1989). This emphasis was especially pronounced in the 1950s and early 1960s, when the Communist regime launched a campaign condemning nationalism as a "bourgeois prejudice." The government urged minorities to merge with the dominant culture in each republic and pressured the republican cultures to merge into a single Yugoslav culture. The mass media and schools were considered particularly important mechanisms of social integration. The media was encouraged to adopt a broader Yugoslav perspective in their coverage, and school texts, which until then were published separately in the individual republics and often promoted narrow views on historical events, were made to conform to a national standard (Shoup 1968). Special efforts were also made to reduce the social and economic differentials among republics by transferring resources from rich republics to poor ones.

As a backlash against this policy, a kind of "economic nationalism" emerged in the late 1960s as the rich republics began to complain about losing resources to poorer republics. These complaints stimulated a resurgence of ethnic rivalry. Although I have not been able to trace trends in attitudes toward other ethnicities, the results of a survey taken in the late 1980s among Serbian and Croatian secondary school children (as reported in the Yugoslav mass media) suggest strong and highly negative stereotypes. Croatian students characterized themselves as "proud, democratic, and peace-loving," but viewed Serbs as "domineering, antagonistic towards others, aggressive, and perfidious." Serbian children viewed their own group as "proud, hospitable, brave, and lively," but described Croats as "perfidious, antagonistic towards others, conceited, chauvinistic, and envious" (Alexander Ciric as quoted in Cohen 1993:258).

Thus, two opposing forces have shaped societal processes in Yugoslavia since World War II: (1) Communist attempts to create a uniform society, as expressed in the doctrines of egalitarianism and internationalism; and (2) the efforts of various population groups to preserve their ethnic and national identities, as mani-

¹ The terms "Western," "Balkan," and "Middle Eastern" are ambiguous, but are employed here for lack of better alternatives. Using the religious affiliation as an identifier is even more misleading.

Table 1. Selected Indicators of Economic and Social Differentials Between the Republics and Autonomous Provinces of the Former Yugoslavia, 1955 to 1988^a

Indicator/Year	Yugo- slavia	Bosnia- Herce- govina	Croatia	Mace- donia	Monte- negro	Slove- nia	Serbia		
							Proper	Vojvodina	Kosovo
<i>Gross Social Product per Capita</i>									
1955	100	80	120	60	80	160	80	80	40
1970	100	65	123	70	74	186	99	115	35
1988	100	65	129	65	71	200	100	118	24
<i>Gross Investments per Capita</i>									
1955	100	100	100	100	200	200	100	100	—
1970	100	68	172	84	135	134	110	87	67
1988	100	67	133	67	67	233	100	133	33
<i>Net Personal Income per Employed</i>									
1963	100	93	103	85	93	125	95	89	79
1970	100	96	107	84	90	117	95	92	82
1988	100	84	109	68	84	152	91	96	66
<i>Infant Mortality Rates</i>									
1955	100	126	83	128	75	50	80	88	145
1970	100	111	60	166	56	49	75	70	181
1988	100	77	53	163	73	41	80	59	212
<i>Illiteracy Rates^b</i>									
1961	100	165	61	110	125	9	117	54	209
1981	100	157	58	100	117	9	115	60	202

Source: Savezni Zavod Statistiki (1963c, 1973c, 1990c); Sijakovic-Blagojevic (1986).

^a Indexed to Yugoslavia = 100.

^b The data for 1961 are for the population over 10 years of age; the data for 1981 are for the population over 15 years of age.

fested in the persistence of various forms of nationalism and of negative ethnic stereotypes. Which force has predominated?

As Table 1 shows, differences among regions and ethnic groups on various indicators persisted, and even increased, between 1955 and 1988, despite the regime's efforts. The per capita gross social product in Slovenia was about three times higher than that in Macedonia and between four times (1955) and eight times (1988) higher than that in Kosovo. The gap in net personal income has widened over the last decades: In 1988 the net personal income in Slovenia was over twice that in Macedonia and Kosovo. The infant mortality rate shows similar trends. The gap between the most- and the least-developed republics has grown larger. In 1988, infant mortality in Croatia was one-fourth that in Kosovo and less than one-third that in Macedonia. Similarly, in

Slovenia infant mortality was less than one-fifth the rate in Kosovo and about one-fourth the rate in Macedonia. Differences in education and illiteracy are particularly important. According to 1981 census data, less than 1 percent of the population over 15 years of age in Slovenia was illiterate, while for Macedonia and Montenegro these percentages were respectively 12.2 and 10.4. In 1981, illiteracy was highest in Kosovo, where 21.0 percent of the population older than 15 were illiterate (for a more comprehensive discussion of the regional differences in the former Yugoslavia, see Lydall 1989, chap. 10).

Several scholars have implied that the integrative tendencies of ethnic intermarriage have predominated in Yugoslavia. For example, the Soviet ethnographers Bromlei and Kashuba (1982) maintain that ethnic exogamy there has grown steadily between 1953 and 1974. They

report the percentages of ethnically mixed marriages in 1956, 1963, 1971, and 1974 as 9.3 percent, 12.4 percent, 13.5 percent, and 13.5 percent respectively (Bromlei and Kashuba 1982:61). The Yugoslav demographer Petrovic ([1966] 1970; 1986a; 1991), concurs, concluding that ethnic exogamy in Yugoslavia is "very high and it is permanently growing" (1986a: 239). A number of other authors refer to intermarriage in the context of other problems and assume, either explicitly or implicitly, that ethnic exogamy in Yugoslavia has been increasing (e.g., Flere 1988). However, there are reasons to doubt the accuracy of this picture. For example, percentages presented by Bromlei and Kashuba are single-year figures that may not adequately represent the overall trends. And most authors do not consider the effects of changes in the definitions of various ethnic groups over time (and especially in the beginning of the period they are studying). In addition, they pay little or no attention to the effect of group size and group sex ratios, two structural factors that may strongly affect the levels and trends of exogamy (e.g., Gray 1987; McCaa 1989; Jones 1991).

DATA

I analyze vital statistics on marriages published by Yugoslavia's Federal Statistical Office (Savezni Zavod Statistiki 1962-1989). Several characteristics of these data either limit the scope of my analysis or suggest the direction of biases.

First, these data are limited only to cross-classifications of the marriages by ethnicity of the spouses. We know that ethnicity is not the only dimension of assortative mating: educational and age homogamy, for example, are often found (Qian and Preston 1993; Mare 1991; Kalmjin 1991a, 1991b; Smith and Garnier 1987). One may expect that differences in educational levels would influence ethnic intermarriage in the former Yugoslavia and would either reinforce or diminish certain ethnic preferences. Unfortunately, with the available data it is not possible to consider the interaction of ethnicity with education or other characteristics that might influence rates of ethnic intermarriage. This is particularly important because there are substantial gender differences in education and illiteracy. For example, according to the 1981 census data the percent-

ages of Slovene males and females over 15 who were illiterate were, respectively, .6 and .8 percent. For the Montenegrins these figures were 2.0 and 14.2 percent; for Macedonians, 5.0 and 12.7 percent; for Serbs, 4.6 and 19.8 percent; and for Albanians, 12.1 and 33.9 percent (Sijakovic-Blagojevic 1986).

A second limitation of the data is that they refer only to officially registered marriages and exclude cohabitation. Clearly, if cohabitation has been on the rise during the period under study (as it has been in Western Europe and the United States), and if couples who cohabit are more (or less) likely to be ethnically mixed than couples who marry, then the results will be biased. Common-law marriages have existed, especially among the rural Orthodox population, since as early as the end of nineteenth century (Culinovic-Constantinovic 1976). Ethnographic evidence, however, suggests that these have been limited largely to cases in which the bride and/or the groom are under the legal age limit, or are too poor to afford a legal marriage, or are too special conditions (Culinovic-Constantinovic 1976). More recently there has been evidence of premarital cohabitation in Yugoslavia, but as in other East European countries (with the possible exception of the former East Germany) it was never considered a viable alternative to marriage (Sardon 1991) and thus has never reached levels which might compromise the results of this study.

A third limitation of the data is that they do not distinguish between first and subsequent marriages. One source of change in intermarriage rates may be changes in the levels of divorce and remarriage, rather than changes in marital preferences. In most republics of the former Yugoslavia, divorce was uncommon prior to World War II, but has subsequently increased rapidly. If those who have divorced are considered "innovators," they may be more likely to innovate by choosing ethnic intermarriage the second or third time around; thus, second and subsequent marriages may be less endogamous than first marriages. In addition, since those who remarry are typically older than those marrying for the first time, they may be more geographically mobile, have a wider circle of acquaintances, and hence, be more likely to marry exogamously. Such a hypothesis is supported by Johnson's (1980) research on religious intermarriage in the United States.

On the other hand, Dean and Gurak (1978), using data from 1970 National Fertility Survey, find little difference in the social status, age, and religious homogamy of first and second marriages. If an order-of-marriage effect exists in the case of Yugoslavia, it should be counterbalanced by the fact that heterogamous marriages tend to have higher rates of dissolution. Although no studies focus on these effects in Yugoslavia, Bentler and Newcomb (1978), Johnson (1980), Schwertfeger (1982), and others have shown that order-of-marriage effects do exist for a wide variety of cases of assortative mating in different social and cultural settings.

Finally, the most serious limitation of the data is that the definitions of some of the ethnic groups have varied over time. These variations dictate that my analysis be limited to the eight largest ethnic groups and to the years after 1961. Differences in ethnic definitions create fluctuations in the sizes of the groups and thus distort the levels and trends in the rates of exogamy. The existence of such differences in Yugoslavia is well documented (Petrovic 1973; Hoffman 1977). In the early postwar censuses (1948 and 1953) members of many smaller ethnic groups (Albanians, Hungarians, Gypsies, Germans etc.) reported themselves as belonging to the larger ethnic groups among which they lived. This was due both to pressure from the authorities for ethnic assimilation and to other specific circumstances: For example, during the 1953 census many Albanians chose to declare themselves as Turks, trying to benefit from the permission given to the Turkish population to emigrate to Turkey. Ethnic Moslems² pose an especially difficult problem in terms of accuracy of registration in the census (see Dyker 1972). In the first postwar census in 1948, as in the previous Yugoslav censuses, "Moslem" was considered a religious rather than an ethnic category. Thus, those who declared themselves as Moslems had to also identify themselves as belonging to one of the large nationalities and were registered as "Serb-Moslem," "Croat-Moslem," and so on.

Only a small number were classified in the category "Moslem-undeclared." In the 1953 census the "Moslem" category was abolished, and Moslems of Yugoslav ethnic origin were classified as "Yugoslav-undeclared," a group that also included people of other nationalities who chose not to declare their actual ethnic background. The 1961 census was the first to include the category "ethnic Moslem." It also allowed freer declaration of national identity. This spirit and methodology was preserved, with some slight modifications (affecting mainly the smaller ethnic groups), in the subsequent period.

In short, only the period after 1961 offers data that are consistent enough to allow a comparative study of intermarriage; thus I begin the analysis with 1962. I have used time periods of three adjacent years: the first three from this period (1962 through 1964), the last three for which data have been published (1987 through 1989), and two periods in-between (1970 through 1972 and 1980 through 1982). Three-year periods are long enough to reduce random fluctuations, but are also short enough not to dilute any possible time trends. I limit the analysis to these four time periods to keep the models manageable (given that log-linear analysis is computationally intensive) and to avoid the gap between 1966 and 1969 when cross-classifications of marriages by ethnic background were not published. As the data show (see Figure 1), these four three-year periods represent well the overall levels and trends in ethnic intermarriage in the former Yugoslavia. I also consider only the eight largest ethnic groups—Albanians, Croats, Hungarians, Macedonians, Montenegrins, Moslems, Serbs, and Slovenes—to avoid the inconsistencies in the registration of the smaller groups and complications stemming from small ethnic group sizes. In addition, I do not consider the category "Yugoslav-undeclared," although many authors interpret this category as an indicator of political integration (e.g., Burg and Berbaum 1989). This category includes people who have chosen not to declare an actual ethnic background. Some of the people in this category have mixed ancestry, but others have a clearly defined ethnic background and are usually well educated urban residents. "Yugoslavs" were overrepresented in the Communist Party: 19.5 percent of the members of the federal party organization (which comprises all party members

² "Moslems by ethnic identity" or "ethnic Moslems" include mostly people of Slavic background who were converted to Islam during the Ottoman domination of the Balkans, and who gradually developed a distinct ethnic consciousness (Dyker 1972).

Table 2. Ethnic Composition as Percentages of the Population in Yugoslavia: By Republics and Autonomous Provinces, 1961 and 1981 Censuses

Year/ Ethnic Group	Yugo- slavia (Total)	Bosnia- Herce- govina	Croatia	Mace- donia	Monte- negro	Slove- nia	Serbia			
							Total	Proper	Vojvo- dina	Kosovo
1961										
Total population (in 1,000s)	18,549	3,278	4,160	1,406	472	1,592	7,642	4,823	1,855	964
<i>Ethnic Group (Percent)</i>										
Slovene	8.0	.1	.9	.0	.2	95.8	.2	.0	.3	.0
Croat	23.2	21.6	80.6	.3	2.2	2.0	2.6	.9	7.8	.7
Hungarian	2.6	.1	1.0	.0	.0	.7	5.0	.0	23.8	.0
Serb	43.5	43.1	15.0	3.1	2.9	.8	75.9	93.1	55.3	23.5
Montenegrin	2.8	.3	.2	.2	81.6	.0	1.3	.6	1.8	4.0
Macedonian	5.5	.0	.1	71.3	.1	.0	.4	.4	.6	.1
Moslem	5.2	25.6	.0	.2	6.4	.0	1.2	1.7	.2	.7
Albanian	4.9	.1	.0	13.0	5.4	.0	9.1	1.0	.2	67.1
Yugoslav-undeclared	1.7	8.4	.4	.1	.3	.2	.3	.2	.2	.5
Other	3.6	.5	1.8	10.9	.7	.5	4.0	2.1	9.8	3.3
Total percent	101.0	99.8	100.0	99.1	99.8	100.0	100.0	100.0	100.0	99.9
1981										
Total population (in 1,000s)	22,425	4,124	4,601	1,909	584	1,892	9,314	5,694	2,035	1,584
<i>Ethnic Group (Percent)</i>										
Slovene	7.8	.1	.5	.0	.1	90.5	.1	.1	.2	.0
Croat	19.7	18.4	75.1	.2	1.2	2.9	1.6	.6	5.4	.6
Hungarian	1.9	.0	.6	.0	.0	.5	4.2	.1	18.9	.0
Serb	36.3	32.0	11.6	2.3	3.3	2.2	66.4	85.4	54.4	13.2
Montenegrin	2.6	.3	.2	.2	68.5	.2	1.6	1.4	2.1	1.7
Macedonian	6.0	.0	.1	67.0	.1	.2	.5	.5	.9	.1
Moslem	8.9	39.5	.5	2.1	13.4	.7	2.3	2.7	.2	3.7
Albanian	7.7	.1	.1	19.8	6.5	.1	14.0	1.3	.2	77.4
Yugoslav-undeclared	5.4	7.9	8.2	.8	5.4	1.4	4.7	4.8	8.2	.2
Other	3.6	1.6	3.1	7.6	1.4	1.3	4.6	3.2	9.4	3.1
Total percent	99.9	99.9	100.0	100.0	99.9	100.0	100.0	100.1	99.9	100.0

Source: Savezni Zavod Statistiki (1965:6-25; 1986:451).

Note: Totals may not add to 100 percent because of rounding error.

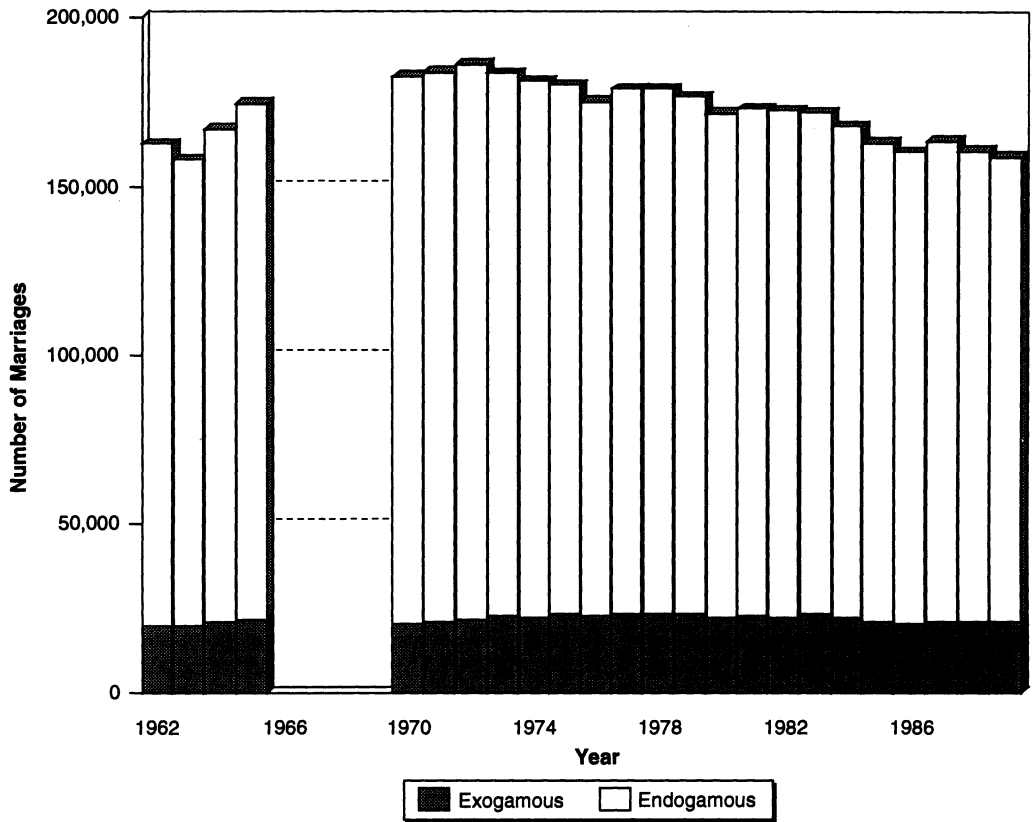


Figure 1. Number of Marriages in the Former Yugoslavia, by Type: 1962 to 1989

employed in federal institutions and organizations) identified themselves in 1981 as “Yugoslav-undeclared” (Cvjeticanin as cited in Burg and Berbaum 1989:539).³ All these factors make the category “Yugoslav-undeclared” fluid and heterogeneous. This is well illustrated by the fluctuations of the proportion of brides and grooms identified as “Yugoslav-undeclared” in the nuptiality statistics: 2.0 percent in 1962 (the first year the vital statistics used the “Ethnic Moslem” and “Yugoslav-undeclared” categories), 1.1 percent in 1972, 4.4 percent in 1986, 3.7 percent in 1987, and 5.3 percent in 1989 (see Savezni Zavod Statistiki 1961–1989). The proportion of the total population that selected “Yugoslav-undeclared” according to the last three censuses was 1.7 percent in 1961, 1.3 percent in 1971, and 5.4 per-

cent in 1981 (see Table 2). These fluctuations make estimates of intermarriage between this and other groups unstable across time and republics; thus, it is difficult to assess the overall fit of the models and to account for the observed patterns.

A related problem is that two of the ethnic categories included in this analysis are culturally ambiguous: Neither the Macedonians nor the Ethnic Moslems articulated a clear ethnic identity until the early twentieth century (some might argue that the same is true for the Montenegrins). Even in recent years, there have been cases where close relatives identify with different nationalities. For example, of five brothers living in Macedonia, two identify as Macedonians, two as Bulgarians, and one identifies alternatively as Serbian or Yugoslav.⁴ Clearly, if these five brothers marry women

³ See Sekulic, Massey, and Hodson (1994), Burg and Berbaum (1989), and Flere (1987) for a discussion of the changes in the political connotation of the Yugoslav identity.

⁴ This specific case was brought to my attention by Prof. Joel Halpern, an anthropologist who has worked extensively in the former Yugoslavia.

from the same social and cultural environment as themselves but who all identify as Macedonians, we will observe three exogamous marriages and two endogamous ones, although all five marriages involve people from more or less the same background. The available data make it impossible to avoid such biases. Ethnographic evidence, however, suggests that the numbers of cases like this are limited, and their net effect is not significant.

METHODS

I use general log-linear models to analyze intermarriage in Yugoslavia. This technique distinguishes the effects of changes in the marginal distribution of spouses' traits from patterns that reflect the association between these traits (Johnson 1980; McCaa 1989; Mare 1991; Kalmjin 1991a, 1991b). Although log-linear models are more complex and less intuitive than most other techniques for analyzing categorical data, they have significant advantages for this study. For example, instead of distinguishing between dependent and independent variables, as in the case of logit models, log-linear analysis examines patterns of deviation from baseline assumptions about the associations in a contingency table, a natural way to present the association between the ethnic backgrounds of spouses. A potential drawback of this approach, however, is that it considers only actual marriages rather than the marriage market as a whole (i.e., it uses only information on who marries whom, so we lose the information on who decides not to marry, given the current marriage market conditions).⁵ This may lead to biases in situations of aberrant marriage patterns (very late marriages or high levels of celibacy), but should not be a major concern here.⁶

⁵ Qian and Preston (1993) and Schoen and Klugel (1988) provide examples of an approach, based on marriage functions which relate the numbers of marriages between men of group *i* and women of group *j* to the number of eligible men and women of different groups.

⁶ The marriage patterns in the republics and autonomous provinces of the former Yugoslavia range from early and universal to moderately late, but nowhere does the proportion of people never-married by age 50 reach levels that can be termed aberrant.

RESULTS AND DISCUSSION

I begin by briefly considering the proportions of exogamous marriages in the republics and autonomous provinces of the former Yugoslavia (Table 3; Figure 1). The data indicate no clear upward trend in the proportion of mixed marriages. According to marriage registration data, between 12 and 13 percent of marriages in Yugoslavia as a whole are mixed, with little variation over time. The 1981 census returns indicate that only 8.6 percent of the intact families (married couples with or without children) involved spouses that have declared different ethnic backgrounds (Petrovic 1991:65). These figures are modest compared to many other ethnically mixed societies. For example, according to the 1980 census, the percentage of ethnically mixed marriages in the United States among American-born couples where the women are in their first marriage is over 20 percent for the total population and about 30 percent for whites/Caucasians (Lieberman and Waters 1985:51); in Canada in the early 1970s, the proportion of exogamous marriages was over 30 percent (Richard 1991:108–11); and in the former Soviet Union, according to 1979 census data, 14.9 percent of families involved spouses of different nationalities (Volkov 1989:12). There is, however, considerable regional variation in Yugoslavia: In Kosovo the proportion of exogamous marriages declined from 9.4 in 1962 to 1964 to only 4.7 percent in 1987 to 1989; during the same period the percentage of mixed marriages in Vojvodina increased from 22.5 to 28.4 (see Table 3).

These data should be interpreted with caution since, as already noted, the conventional indices of intermarriage are strongly affected by ethnic group size and the sex ratios within ethnic groups. It is widely recognized that small groups and groups with skewed sex ratios are more likely to intermarry because of the limited in-group marriage markets they face.⁷ The analyses described below control for these factors, allowing for a better assessment of the intermarriage propensities.

⁷ Blau (1977) has formulated this as a theorem within his theory of social structure, stating that "for any dichotomy of a society, the proportion of group members intermarried is an inverse function of group size" (p. 42).

Table 3. Percentages of Exogamous Marriages in Yugoslavia: By Republics and Autonomous Provinces, 1962 to 1989

Republic/Province	1962–1964	1970–1972	1980–1982	1987–1989
Yugoslavia	12.7	11.7	13.1	13.0
Bosnia-Herzegovina	11.4	9.5	12.2	11.9
Montenegro	17.9	14.6	13.4	13.1
Croatia	15.8	15.4	17.1	17.4
Macedonia	13.5	9.9	8.2	7.8
Slovenia	7.7	7.8	11.0	13.0
Serbia (total)	12.3	11.9	13.1	12.9
Proper	8.5	7.8	9.9	10.4
Vojvodina	22.5	25.3	27.6	28.4
Kosovo	9.4	7.7	6.1	4.7

Source: Savezni Zavod Statistiki (1961–1989).

Models

The models I present here can be subdivided across two dimensions. The first dimension incorporates assumptions about the association between the ethnic backgrounds of the spouses; the second dimension focuses on how these assumptions hold across republics (or autonomous provinces) and time. In Table 4, the first dimension is represented by the five column-headings; the second dimension is represented by the panel-headings of the rows. The second dimension is simpler to discuss, so I begin there.

Curiosity about trends over time motivated this work; thus time is a critical factor. In addition, the substantial variation in the proportion of mixed marriages across republics and autonomous provinces suggests that residence in a particular republic matters for intermarriage. The six sets of models designated in Table 4 as A, B, C, D, E, and F refer to different sets of assumptions about the interactions between mating preferences, and republic and time period. The first set of models (republic and time-invariant models) assumes that the same mating preferences characterize all the regions at every time period. In the second and third sets of models (republic-invariant models), interactions of mating preferences and time period are included, so the mating preferences remain the same across republics, but vary over time. I use

two specifications of these interactions: one where mating preferences are assumed to change linearly (Model B) and another where no constraints are placed on these changes (Model C). This allows for an analysis of the overall trends in ethnic intermarriage without considering the regional differences. Alternatively, the fourth set (time-invariant models) includes interactions of mating preferences with republic (province), but not with time period (i.e., mating preferences remain the same over time but vary across republics), thus allowing for analysis of the regional differences in intermarriage without considering the trends in endogamy. In the fifth set of models (unconstrained models), mating preferences vary both over time and across regions (republics and provinces) and provide a test for both regional differences and time-trends in endogamy. The last set of models combines the previous two sets—it constrains certain mating preference parameters to be time-invariant, while others are unconstrained.

Now let us consider the first dimension. Models 1 through 5 apply different assumptions about the association between the ethnic backgrounds of brides and grooms, proceeding from the simplest to the most complex. Model 1 (the independence model) is used as a baseline model to represent the opportunity structure. It includes only the marginal effects and assumes random mating (i.e., marital choices

are not affected differentially by the ethnic background, but reflect only the relative supply of potential husbands and wives). As expected, this model fits the data very poorly, as is indicated by the high values of the likelihood ratio statistic (G^2), and the Bayesian Information Criterion (BIC) presented in Table 4.⁸ The subsequent models include parameters that reflect the preference for endogamy. These models present exogamy as an outcome of two distinct tendencies: (1) an endogamy tendency, where certain people marry within their own ethnic group, and (2) an exogamy tendency, where those who do not marry within their own group choose mates according to certain rules (be it random mating, or “zones of attraction”).

Models 2 and 3 are based on the assumption that “likes prefer likes”—people tend toward ethnic endogamy—but once they cross the boundaries of their own ethnic group, they face a random mating situation (these are variants of the quasi-independence model familiar in studies of social mobility). In Model 2, the “uniform endogamy” model, all ethnic groups are assumed to have the same degree of preference for ethnic endogamy, while in Model 3, which I call the “variable endogamy” model, ethnic groups vary in the degree of preference for members of their own group. Again, in both cases mating is random for exogamous marriages (see Appendix A). Both of these models fit the data much better than does the independence model. The likelihood ratio and BIC statistic for Model 2A (the republic- and time-invariant uniform endogamy model) are more than 10 times lower than the independence model, although only 1 degree of freedom is lost (for the single endogamy parameter). The fit statistics for the other uniform endogamy and variable endogamy mod-

els are even better. This finding underscores a strong tendency towards endogamy in the former Yugoslavia. Table 4 also shows that Model 3 fits the data better than Model 2, indicating that the different ethnic groups in the former Yugoslavia vary in their degree of preference for endogamy.

Now let us consider whether preferences for endogamy vary over time and across republics. Table 3 showed no clear trend in the proportion of ethnically mixed marriages over time in Yugoslavia as a whole, but also revealed that this proportion varied substantially across republics. Log-linear analysis permits us to validate these findings and perform tests for statistical significance. Allowing for endogamy and period interactions in both uniform endogamy and variable endogamy models (Models 2B, 2C, 3B and 3C) improves the fit of the model only slightly compared to the respective time- and republic-invariant models (Models 2A and 3A). The nonlinear specification of the time-trend models (Models 2C and 3C) provides a better representation of the data than the linear specification (Models 2B and 3B). Introducing endogamy and republic interactions (Models 2D and 3D) yields a much better fit than the endogamy and period interactions did. This suggests that there are strong regional differentials in ethnic intermarriage in the former Yugoslavia, while the period effects are weak. Another important conclusion is that for Models 3D and 3E BIC becomes negative, indicating that in terms of the trade-off between fit and parsimony these two models represent the data better than the saturated model. Very significant is the fact that the time-invariant variable endogamy model (Model 3D) yields lower values of BIC than the unconstrained variable endogamy model (Model 3E). Thus, there is no significant trend in the levels of endogamy, while the differences among the individual republics and autonomous provinces are substantial.

Examining residuals from various versions of Model 3 reveals patterns of deviation that suggest the existence of “zones of attraction” with respect to exogamy. These correspond to the distinction between the three cultural traditions outlined earlier in the paper (Western, Balkan, and Middle Eastern). It appears that those who married outside their own ethnic group preferred partners from their own cultural tradition. Moreover, it appears that the

⁸ BIC was proposed by Adrian Raftery as a way to adjust the likelihood ratio statistic for sample size. The reason for this adjustment is that G^2 is designed to detect any discrepancies between model and empirical data, so with large samples it will reject even a good model (Raftery 1986a, 1986b). Given the large samples on which this study is based (a total of 1,877,353 marriages), the BIC statistic provides a better criterion for overall fit. Negative values of BIC indicate that a model should be preferred to the saturated model in terms of the trade-off between fit and parsimony, and the more negative the value of BIC, the better the fit of the model.

Table 4. Likelihood Ratios and Statistics of Fit for Selected Models of Inter-marriage in the Former Yugoslavia

Statistic	Quasi-Independence Models				
	Model 1: Independence Model	Model 2: Uniform Endogamy	Model 3: Variable Endogamy	Model 4: Crossings Model	Model 5: Crossings With Asymmetries and Affinities
<i>A. Republic- and Time-Invariant Models</i>					
G ²	1330526	123202	33065	22363	—
d.f.	1568	1567	1560	1558	—
BIC	1307876	100566	10530	-143	—
<i>B. Republic-Invariant Models I (Linear Change of Endogamy)</i>					
G ²	—	121178	32467	21711	—
d.f.	—	1566	1552	1548	—
BIC	—	98557	10048	-650	—
<i>C. Republic-Invariant Models II (No Constraints on Change of Endogamy)</i>					
G ²	—	121080	32109	21283	—
d.f.	—	1564	1536	1528	—
BIC	—	98487	9921	-790	—
<i>D. Time-Invariant Models</i>					
G ²	—	89034	15212	5700	—
d.f.	—	1560	1504	1488	—
BIC	—	66499	-6514	-15795	—
<i>E. Unconstrained Models</i>					
G ²	—	86024	13300	3793	—
d.f.	—	1536	1312	1251	—
BIC	—	63836	-5662	-14278	—
<i>F. Time-Invariant Endogamy and Unconstrained Barrier Parameters</i>					
G ²	—	—	—	4568	2881
d.f.	—	—	—	1440	1418
BIC	—	—	—	-16233	-17602

Note: G² is the likelihood ratio statistic; BIC is a statistic of fit, which adjusts the likelihood ratio for sample size: BIC = G² - (d.f.) ln(N). In our case N = 1,877,353.

closer the cultural tradition of the potential partner, the more likely intermarriage became.

In Model 4, I formalize these observations. As in Model 3, the ethnic groups vary in their degree of preference for ethnic endogamy, but those who marry exogamously no longer choose randomly. Rather, they prefer mates who come from their own cultural tradition, and as long as this preference is met, the choice is random with respect to ethnicity. The cultural traditions are separated by boundaries that must be crossed sequentially: A member of the Western tradition who marries outside that tra-

dition is assumed to be more likely to marry someone from the Balkan than from the Middle Eastern tradition. Within each cultural tradition, ethnicity is irrelevant. Thus, a member of the Western tradition who marries someone from the Balkan tradition is presumed to prefer a Macedonian, a Montenegrin, or a Serb equally as a marriage partner. To account for these patterns I add "barrier parameters" to the model, which provide a way to account for the social distances among the three cultural traditions. Intermarriage between persons coming from cultural backgrounds *i* and *j* can be mod-

eled as the crossing of the social barriers separating these two groups. The permeability of these barriers is measured by the barrier parameters, denoted S_k ($k = 1$ Western→Balkan; $k = 2$ Balkan→Middle Eastern; see Appendix A). Crossings models were introduced first in social mobility studies (see Hauser 1980; Hout 1983; Smith and Garnier 1987); they presuppose ordinal data (e.g., socioeconomic status, educational level, etc.). Although ethnicity is a nominal variable, ordinal properties can be assigned to it based on the place of a specific ethnic group in a “cultural continuum.” In the case of Yugoslavia, I assume that the Balkan cultural tradition occupies the midpoint, while the Western and Middle Eastern traditions occupy two divergent poles. This warrants the use of crossings models in the case of ethnic intermarriage. Johnson (1980) has used this method in a similar situation (religious intermarriage), implementing an order based on the “cognitive social distance” among religious groups.

As Table 4 shows, the crossings models represent the data better than any of the previous models—the highly negative values of BIC also indicate that the crossings models better represent the data than the saturated model, in terms of the trade-off between fit and parsimony. Again, the time-invariant crossings model (Model 4D) yields lower values of BIC than the unconstrained crossings model (Model 4E). Fitting a crossings model where both the endogamy and the barrier parameters are constrained to change linearly (not shown in Table 4) yields a BIC of -15883 ($G^2 = 4456.4$; d.f. = 1408), which is higher than the BIC for the time-invariant crossings model. Similarly, a model where the endogamy parameters are constrained to change linearly but the barrier parameters are unconstrained (also not shown in Table 4) also yields higher values of BIC than model 4F (BIC = -15820 ; $G^2 = 4056.6$; d.f. = 1376). This reconfirms our finding of no significant trend in the levels of endogamy and of substantial differences among the individual republics and autonomous provinces. Rather unexpectedly, however, the extent to which exogamous marriages occur within the same cultural tradition does vary over time. Model 4F, in which preference for marriage within a cultural tradition is allowed to vary over republic and over time, fits the data better than Model 4D, in which preference for marriage within a cultural tradition varies only across republics

and is held constant over time. As will be seen shortly, these variations over time are up and down movements and do not amount to a clear trend in the degree to which cultural traditions constrain exogamy.

An important assumption was embedded in the models thus far presented—that exogamous marriages are quasi-symmetrical; that is, males and females of a given ethnic group are equally likely to marry persons from the other ethnic groups (see Appendix A). Some of the remaining larger residuals between the observed and the fitted frequencies in Model 4F indicate that relaxing this assumption could further improve the fit of the models. This observation is formalized in Model 5F, an extension of Model 4F with added asymmetry and special affinity parameters. The asymmetry parameters capture sex differentials in assortative mating, which may be due to sex differences in the conscious selection of a marital partner (e.g., some form of hypergamy or hypogamy). Adding these parameters relaxes the assumption of symmetry. The special affinity parameters account for marital preferences beyond those implied by the framework underlying the crossings models and allow the identification of pockets of ethnic affinities, or conversely, dislike. Whereas the parametrization of the models so far was theoretically driven (there were a priori reasons to believe that ethnicity, republic, time, and cultural tradition mattered), the addition of asymmetry and special affinity parameters is an empirical “fix” which further improves the fit and produces the best fitting model, Model 5F. Thus, I base all further analyses on Model 5F (see Table 4).

Findings

Before I discuss mating preference parameters, I will summarize the findings based on the fit of the various models tested. Regardless of the assumptions made about the nature of endogamy and exogamy, the assumptions embedded in Models 2 through 5 are all superior to the assumption of random mating—the likelihood ratios and BIC statistics are lower for these models than for Model 1. Even the simplest model (Model 2A), where a single parameter is added to represent a preference for ethnic endogamy, fits much better than the independence model—the likelihood ratio and BIC statistic for Model 2A are over 10 times lower

Table 5. Estimates of Intermarriage Parameters for the Republics and Autonomous Provinces of Yugoslavia: Crossings Model With Assymetries and Special Affinities (Model 5F)

Parameters	Bosnia-Hercegovina	Croatia	Macedonia	Montenegro	Slovenia	Serbia		
						Kosovo	Proper	Vojvodina
ENDOGENY PARAMETERS								
Slovenes	7.75*	11.30*	8.13*	15.72*	9.18*	44.70*	8.14*	9.07*
Croats	17.36*	2.16*	5.06*	3.59*	2.41*	562.84*	3.02*	3.42*
Hungarians	44.08*	108.20*	113.64*	95.49*	139.91*	.16	16.58*	12.58*
Serbs	8.30*	8.53*	2.52*	4.12*	3.93*	5.46*	3.56*	2.03*
Montenegrins	5.33*	16.17*	50.20*	3.48*	11.48*	6.30*	7.61*	22.02*
Macedonians	20.64*	29.96*	4.94*	19.43*	28.33*	5.06*	11.07*	35.73*
Moslems	7.22*	12.17*	23.57*	31.75*	14.06*	102.00*	44.93*	9.28*
Albanians	124.46*	140.75*	60.64 [†]	59.92*	211.03*	17.24*	269.08*	74.37*
BARRIER PARAMETERS								
<i>S₁ (Western→Balkan)</i>								
1962–1964	.93	.63*	.75	.55*	.59*	2.60	.69*	.45*
1970–1972	.88 [†]	.65*	.86	.48*	.48 [†]	2.15	.69*	.51 ^{††}
1980–1982	1.11 ^{††}	.66*	.83	.50*	.55 ^{††}	1.32 [†]	.64*	.53*
1987–1989	1.01	.58 ^{††}	.64	.52*	.54*	1.86 [†]	.58*	.50 ^{††}
<i>S₂ (Balkan→Middle Eastern)</i>								
1962–1964	.17*	.11*	.09*	.35*	.14*	.19*	.09*	.08*
1970–1972	.21 ^{††}	.25 ^{††}	.16 ^{††}	.20 ^{††}	.22*	.19*	.13 ^{††}	.26 ^{††}
1980–1982	.28 ^{††}	.46 ^{††}	.11 ^{††}	.22*	.55 ^{††}	.20*	.16 ^{††}	.32*
1987–1989	.25 ^{††}	.50*	.08 ^{††}	.21*	.79 [†]	.17 ^{††}	.18 ^{††}	.29*
ASYMMETRY PARAMETERS^a								
A ₁	.53*	.69*	.23*	3.10*	.41*	.54*	1.50*	1.46*
A ₂	2.50*	—	3.55*	—	1.38*	—	5.06*	—
A ₃	1.86*	—	—	—	—	—	—	—
1962–1964	—	—	—	—	—	—	6.15*	—
1970–1972	—	—	—	—	—	—	2.63 ^{††}	—
1980–1982	—	—	—	—	—	—	1.66 ^{††}	—
1987–1989	—	—	—	—	—	—	1.03 [†]	—
SPECIAL AFFINITY PARAMETERS^b								
SAP	.50*	2.24*	16.61*	—	—	4.33*	—	.59*

* $p < .05$ [†] Estimate is significantly different from the estimate for the preceding period at $p < .05$.

^a The asymmetry parameters are coded as follows: *Bosnia-Hercegovina*—A₁, Slovenian groom-Serbian bride; A₂, Croatian groom-Albanian bride; A₃, Moslem groom-Slovenian bride; *Croatia*—A₁, Serbian groom-Slovenian bride; *Macedonia*—A₁, Albanian groom-Macedonian bride; A₂, Albanian groom-Croatian or Montenegrin bride; *Montenegro*—A₁, Serbian or Moslem groom-Croatian bride; *Slovenia*—A₁, Croatian groom-Hungarian bride; A₂, Croatian groom-Serbian bride; *Kosovo*—A₁, Albanian groom-Macedonian or Serbian bride; *Serbia Proper*—A₁, Moslem groom-Montenegrin bride; A₂, Macedonian groom-Albanian bride; A₃, Serbian groom-Albanian bride; *Vojvodina*—A₁, Slovenian groom-Serbian bride.

^b The special affinity parameters are coded as follows: *Bosnia-Hercegovina*—Croats-Montenegrins; *Croatia*—Serbians-Croats; *Macedonia*—Montenegrins-Moslems; *Kosovo*—Albanians-Croats; *Vojvodina*—Croats-Slovenes.

Notes: Estimates are converted back to normal scale. The standard errors of the differences of parameter estimates are not included here due to space limitations. The author will provide them upon request.

than for Model 1. A similarly strong conclusion can be reached about trends in endogamy over time: No matter what assumptions we make about the nature of endogamy and exogamy, time-invariant models are generally preferable in terms of the trade-off between fit and parsimony to those in which endogamy is allowed to change over time. And clearly, the individual republics and autonomous provinces differ significantly in levels of endogamy: All models that permit the levels of endogamy to vary across republics fit better than models which assume invariant levels of endogamy across republics.

The preceding analysis shows a statistically significant preference for endogamy and supports cultural patterns in exogamy. It does not, however, compare the extent of these preferences across ethnic groups, republics, or time. Which ethnic groups are more open to marriage with other ethnic groups? Which are most closed? To compare the magnitude of these preferences I examine the parameter estimates of the best fitting model, Model 5F.

The estimates of the intermarriage parameters based on Model 5F are shown in Table 5: They show the relative chances that members of different ethnic groups have to marry within or out of their own ethnic group. For example, the first row in the table shows endogamy parameters for Slovenes in each of the eight republics and autonomous provinces. These parameters vary from 7.75 in Bosnia-Herzegovina to 44.70 in Kosovo. These figures indicate that the Slovenes are between 7.8 and 44.7 times more likely to marry endogamously than the level implied by random mating, after controlling for cultural background, asymmetry, and special affinity effects. Albanians are an especially closed group: They are 59.9 (in Montenegro) to 269.1 (in Serbia Proper) times more likely to marry other Albanians than would be implied by random mating (Table 5, row 8). This finding is especially important given the mounting tensions in the autonomous province of Kosovo and the long history of attempts by Albanians there to achieve independence. In some cases endogamy is even more pronounced than among the Albanians. The Croats in Kosovo, for example, are over 560 times more likely to marry within their own ethnic group than the level implied by random mating (after controlling for cultural background, asymmetry, and special affinity ef-

fects). This result is not unexpected, given the fact that the small Croatian minority in Kosovo lives amidst ethnic groups belonging to the Middle-Eastern cultural tradition (Albanians, who in 1981 constituted over three-fourths of the population in Kosovo and some Ethnic Moslems) and ethnic groups belonging to the Balkan tradition (Serbs, who in 1981 in 1981 accounted for 13 percent of the population, and some Montenegrins). This finding further underscores the importance of the cultural traditions in the choice of marital partners, and conceivably in the broader social life.

The least endogamous group is the Serbs. As the estimates in Table 5 show, Serbs are only between 2.0 and 8.5 times more likely to marry within their ethnic group than is implied by random mating (after controlling for cultural background). This finding probably reflects their position as the dominant group in the Yugoslav society and is generally in accordance with the arguments of minority group effects theory, which postulate that a group's social behavior (including mate selection) depends upon its relative size in a given population (Blalock 1967; Goldscheider and Uhlenberg 1969). My attempts to account for such effects by including parameters that distinguish majority and minority groups in the log-linear analysis did not yield significant improvement in the fit of the models.⁹

How open are the Croat, Moslem, and Serb communities in Bosnia-Herzegovina, where conflict is currently intense, compared to their behavior in the other republics, where conflict is less? It is significant, I think, that both the Croats and the Serbs in Bosnia-Herzegovina are more endogamous than they are in the other republics. As noted earlier, the Serbs have lower levels of endogamy than do members of other ethnicities; in Bosnia-Herzegovina, however, their levels of endogamy are higher than in any other republic except in Croatia (the difference between the estimates for Bosnia-Herzegovina and Croatia is not statistically significant at $p < .05$). Similarly, the Croats are less likely to marry exogamously in Bosnia-Herzegovina than they are in most other republics—only in Kosovo are the Croats signifi-

⁹ Schoen and Thomas (1990) also find little direct evidence of minority group effects in their study of the intercultural variability in religious intermarriage in Switzerland.

cantly more endogamous; for Macedonia and Montenegro the estimates are not significantly different from those for Bosnia-Herzegovina, while for the rest of the republics and provinces they are lower. In contrast, the Moslems, who generally tend to be a closed group, are more likely to marry exogamously in Bosnia-Herzegovina than they are in the other republics—only the endogamy parameters for the Moslems in Slovenia and Vojvodina are not significantly higher than that for Bosnia-Herzegovina. Nonetheless, levels of endogamy among the Moslems in Bosnia-Herzegovina are still relatively high. Indeed, the difference between the endogamy parameters for the Moslems and the Serbs in Bosnia-Herzegovina is not statistically significant at $p < .05$; the Croats are significantly more endogamous than the other two groups (see Table 5). Thus, the three communities now at war have remained very much closed (endogamous) during the period under study. There are indications that in the large urban centers (especially Sarajevo) the intermarriage among these three groups has been more prevalent; however, the data used in this study does not allow this to be verified.

Another interesting case is the autonomous province of Vojvodina. In contrast to Bosnia-Herzegovina, the proportion of mixed marriages there is high, and ethnic conflict has been low. But does the high proportion of mixed marriages reflect social integration? Or does it simply reflect the fact that, as Table 2 showed, Vojvodina is inhabited by a dozen or more small groups, all of which face a limited marriage market (the total population of the province is only 5.5 million)? In Table 5, we see that the various ethnic groups show the same propensities to intermarry as they do elsewhere. Only the Serbs, who are the majority in Vojvodina and constituted almost 55 percent of the population in 1981, tend to be less endogamous in Vojvodina than elsewhere (the difference of the estimates for Vojvodina and Serbia proper are not statistically significant at $p < .05$; for the rest of the republics and autonomous provinces the estimates of the endogamy parameters are significantly higher). This suggests that the higher proportion of intermarriage in Vojvodina than in other provinces is due to structural factors. We can, however, speculate that the maintenance of peace in this province, at least so far, may be in part a consequence of its high degree of intermarriage.

In Table 5 the influence of cultural tradition on mating preferences is quantified in the barrier parameters. These parameters are interpreted as presenting the relative chances that someone will marry a person from another cultural tradition. As already noted, the intermarriage between persons coming from two cultural traditions is modeled as requiring sequential crossings of the social barriers separating the two traditions. The estimates in Table 5 indicate that the barrier between the Western and Balkan cultural traditions (represented by the S_1 parameters) tends to be more permeable than the barrier between the Balkan and Middle Eastern cultural traditions (denoted as S_2 parameters in Table 5): Intermarriages between people from Western and Balkan cultural backgrounds are about half as likely to occur compared to the level implied by random mating (after controlling for ethnic endogamy, asymmetry, and special affinity effects), whereas intermarriages between people from Balkan and Middle Eastern cultural background are up to 12.5 times less likely to occur than the level implied by random mating (after controlling for ethnic endogamy, asymmetry, and special affinity effects).

Where are barriers to intermarriage the highest, and where are they the lowest? Interestingly, the barriers between Western and Balkan cultural traditions are particularly weak in Bosnia-Herzegovina and in Kosovo, where S_1 is not significantly different from zero. Both of these regions have relatively large Islamic populations. This indicates that in these regions the two cultural traditions based on Christianity (the Western and the Balkan) tend to stick together. Conversely, S_1 has the lowest values (i.e., the barrier is least permeable) in Slovenia, the most westernized republic in Yugoslavia. Its values are also low in Vojvodina, where a sizable Hungarian minority (which belongs to the Western tradition) lives among the Serbian majority.

The barrier between the Middle Eastern and Balkan cultural traditions is least permeable in Macedonia, where there is a long history of tension between the Macedonian majority and the Albanian minority. The barrier is most permeable in the most westernized republic, Slovenia, where it is coupled with high absolute values of S_1 . This may indicate that the people belonging to the Western tradition in Slovenia tend to distance themselves from the rest, thus forcing

population groups belonging to other cultural traditions to stick together. A similar but weaker effect is observed in Croatia and Vojvodina.

The barrier separating the Western and Balkan traditions has remained rather stable over time, as is shown by the lack of significant differences in the estimates of the S_1 parameters for the different time periods. The values of S_2 increase and decrease, but although there are a few exceptions, there is no discernible trend. One of the exceptions is gradual increase in the permeability of the barrier between the Balkan and Middle Eastern traditions in Serbia proper: As Table 5 shows, the value of S_2 there has increased two-fold (from .09 to .18). In Bosnia-Herzegovina, in contrast, the permeability of this barrier increases until the early 1980s, and then decreases, while in Macedonia the permeability has been decreasing since the early 1970s.

These findings once again emphasize the importance of the differences in the cultural traditions within Yugoslav society and underscore the inherent fragility of the former Yugoslavia as a federal state. On the other hand, they suggest that what remains of the former Yugoslavia, a union of Serbia and Montenegro, may have better prospects for survival, because it unites populations with similar cultural backgrounds.

The asymmetry and special affinity parameters in Table 5 reflect mainly empirical particularities, so in general they are hard to interpret. The most important finding is probably that no consistent patterns emerge in the asymmetry parameters, and special affinity parameters had to be added for only five republics and autonomous provinces (in most cases with relatively low values). Another interesting finding is that the Croats are more likely than other ethnic groups belonging to the Western tradition to cross cultural barriers to marry people belonging to different traditions. In Croatia, for example, Croats are more likely to marry Serbs than is implied by the framework underlying the crossings model; in Kosovo, Croats are more likely to marry Albanians (see the special affinity parameter estimates in Table 5). Some of the asymmetry parameter estimates also support this finding (e.g., A_2 for Bosnia-Herzegovina, for Macedonia, and for Slovenia; A_1 for Montenegro).

The asymmetry parameters also provide interesting insights on the residence patterns in

Yugoslavia. Most ethnic groups there are known to have been patrilocal (see e.g., Bromlei and Kashuba 1982). If this is still the case, and if we assume that a substantial part of the intermarriages involve not simply people from different ethnic groups but also people from different parts of Yugoslavia, we might expect to find positive values on asymmetry parameters corresponding to grooms from the ethnic group constituting the majority in a given region. This is not the case, which may be interpreted as confirming the findings of anthropologists that residence patterns in Yugoslavia have shifted towards neolocality.

SUMMARY AND CONCLUSIONS

The theoretical basis of this study is drawn from the theories of social distance and social structure. These theories share the assumption that intermarriage is both the main indicator and a cause of social integration. I have examined whether the popular notion, that ethnic intermarriage was widespread in the former Yugoslavia, is true. On the basis of marriage registration data, and using log-linear models to characterize associations and differential change, I have found this notion to be an exaggeration. Rather, ethnic endogamy has been the norm in Yugoslavia, and over the years studied (1962 to 1989) no clear trend emerged, either in terms of increasing rates of intermarriage or decreasing social distance between the various ethnic groups and cultural traditions.

Although indirectly, these findings are supported by the persisting differences in the timing and prevalence of marriage. Three broadly defined marriage patterns coexisted in the former Yugoslavia¹⁰: The "European," characterized by late marriage and high celibacy (observed in a moderate form in Slovenia, where in the beginning of the period under study the mean age at first marriage for women was 24.3 years, and 17 percent of women above age 50

¹⁰ These three marriage patterns differ from the three cultural traditions introduced earlier. The idea that there are two marriage patterns in Europe—the "European" and the "Traditional"—was introduced by Hajnal (1965), who drew the approximate dividing line between the two from Trieste to St. Petersburg. Later, other authors suggested the existence of a third pattern, the "Mediterranean" (R. Smith 1981; Laslett 1983).

were single¹¹); the "Mediterranean," characterized by early marriage for females and late marriage for males, resulting in wide age gaps between spouses, (observed in a moderate form in Kosovo and Montenegro, where the mean age at first marriage is 28 years for the men and only around 22 years for women); and the "Traditional," with early and nearly universal marriage (characteristic for the rest of the former Yugoslavia, where the mean age at first marriage for men is between 24.5 and 25.5 years and for women is between 21.5 and 22 years, while the percent never-married varies between 1.5 and 6).

The timing of marriage may have potential implications for the choice of a marital partner and the patterns of intermarriage through two separate mechanisms. The first mechanism implies that men from early-marrying populations should be less likely to intermarry with women from late-marrying populations if the social norm is that men should marry women younger than they are. Thus, for example Slovenian women should be less likely to marry men from early-marrying populations. Part of this effect should be reflected in the asymmetry parameters. As can be seen in Table 5, no such effect is observed. Adding an explicit parameter to account for this effect did not significantly improve the fit of the model. The second mechanism implies that late-marrying persons should be more likely to intermarry, because they have been longer on the marriage market and are more likely to meet partners from outside their immediate surroundings. Again no significant net effects could be detected with the data and methods employed here.

More important from the point of view of this study, however, is the fact that intermarriage may affect nuptiality by producing behavioral assimilation in the form of converging marriage patterns. This is noted by Ander-

ton (1986), who suggests that with exogamy there is a tendency for marriage behavior, and specifically the age at marriage, to be more similar for the out-group than to within-group marriages (Anderton 1986:343). So whether nuptiality patterns in the individual republics and autonomous provinces are converging or not might serve as a basis for confirming or questioning our findings on the levels and trends of ethnic exogamy. The nuptiality differentials in Yugoslavia, though, persisted during the years studied (Petrovic 1986b), and the small convergence that has occurred does not go beyond the general trend observed in most modern societies (e.g., Hajnal 1965; Dixon 1971; Watkins 1981). Further investigations into the nuptiality differences in the former Yugoslavia and their interrelations with ethnic intermarriage might provide additional insights into these questions.

Recent events in Yugoslavia challenge the conventional wisdom that in modern industrial societies ethnic divisions and conflicts will eventually disappear.¹² Despite decades of industrialization and modernization, ethnic divisions in Yugoslavia obviously remained strong enough to lead to war. The conventional sociological wisdom that intermarriage is an indicator of social integration remains intact, however, at least in this case. Judging from the levels of ethnic endogamy, Yugoslavia has never been fully integrated: Thus, there is no mystery in that country's disintegration, although the violence accompanying the disintegration remains profoundly disturbing. Rudyard Kipling is also proven right: Although geopolitically the East and the West meet in what used to be Yugoslavia, they were rarely meeting in front of the marriage altar.

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¹¹ According to Hajnal (1965), what distinguishes the European pattern are late marriages and high celibacy among women—the mean age at first marriage is above 23 years, and more than 10 percent of the women in the 45 to 49 age group remain single. As in most countries exhibiting the European pattern, during the 1960s and 1970s a tendency towards earlier and more universal marriages was observed in Slovenia—by the mid-1980s, the mean age at first marriage there had dropped to 22 years, and according to the 1981 census the proportion never married at age 50 was 12 percent.

¹² The intellectual roots of these theories were laid by Marx ([1848] 1988), Toennies ([1887] 1988), and Durkheim ([1893] 1984). A modern proponent of such a theory, especially regarding Yugoslavia, is Bertsch (1971, 1976).

Appendix A. Summary of the Models^a

Model	Interaction Term ^b	Notation	Description and Assumptions
GENERAL FORM:	$F_{ijkl} = \alpha_0 \beta^c_i \beta^c_j \beta^c_k \beta^c_l \tau_{ijkl}$ or in linear form: $\ln(F_{ijkl}) = a_0 + b^c_i + b^c_j + b^c_k + b^c_l + c_{ijkl}$	where: F_{ijkl} —expected number of marriages between groups i and j , at time k , in republic or autonomous province l ; $\beta^c_i, \beta^c_j, \beta^c_k, \beta^c_l$ —row (ethnicity of bride), column (ethnicity of groom), and table (period and republic) effects; τ_{ijkl} —interaction effects; ^c α_0 —geometric mean; $a_0 = \ln(\alpha_0)$; $b^c_i = \ln(\beta^c_i)$; $b^c_j = \ln(\beta^c_j)$; $b^c_k = \ln(\beta^c_k)$; $b^c_l = \ln(\beta^c_l)$; $c_{ijkl} = \ln(\tau_{ijkl})$	
MODEL 1: Independence Model	$c_{ijkl} = 0$ for all i, j, k , and l		Assumes random mating (i.e., who marries whom is not affected differentially by ethnic background). This model is used as a baseline representing the opportunity structure.
MODEL 2: Uniform Endogamy Model	$c_{ijkl} = h_{kl}$ $c_{ijkl} = 0$ for $i = j$ for $i \neq j$	h_{kl} —endogamy parameter for period k ($k = 1, 2, 3, 4$), and republic l ($l = 1, 2, \dots, 8$)	Marriages are assumed to result from two separate tendencies: an endogamy tendency (i.e., people prefer to marry within their own ethnic group) and an exogamy tendency (according to which exogamous marriages follow the random mating rules). In addition, exogamous marriages are assumed to be quasi-symmetrical (i.e., men and women of one group are equally likely to intermarry with persons from another).
MODEL 3: Variable Endogamy Model	$c_{ijkl} = h_{ikl}$ $c_{ijkl} = 0$ for $i = j$ for $i \neq j$	h_{ikl} —endogamy parameter for ethnic group i ($i = 1, \dots, 8$), period k , and republic l	
MODEL 4: Crossings Model	$c_{ijkl} = h_{ikl}$ $c_{ijkl} = \Pi_{S_{mkl}}$ for $i = j$ for $i \neq j$	S_{mkl} —barrier parameters for adjacent traditions ($m = 1$: Western→Balkan; $m = 2$: Balkan→Middle Eastern)	Relaxes the assumption that exogamous marriages follow the random mating rule and accounts for preferences for marriage within your own cultural tradition. The intermarriages are modeled as requiring crossing a set of barriers separating two traditions.
MODEL 5: Crossings Models With Special Affinities and Asymmetries	$c_{ijkl} = h_{ikl}$ $c_{ijkl} = a_{ijk} d_{ijkl} \Pi_{S_{mkl}}$ for $i = j$ for $i \neq j$	a_{ijk} —asymmetry parameter for men of ethnicity i and women of ethnicity j d_{ijkl} —special affinity parameter for ethnic groups i and j	Adding asymmetry parameters relaxes the constraint of symmetry. These parameters account for sex differentials in the rates of exogamy, due for example to some form of hypergamy or hypogamy. The special affinity parameters account for marital preferences beyond those implied by the framework underlying the crossings model.

^a Appendix A presents the most general form of the models used in this paper: the unconstrained models. In models D, C, and A (the time-invariant, republic-invariant, and fully constrained models) the additional constraints that $k = const$, $l = const$, or k and $l = const$ are introduced. Model B constrains the change in the endogamy parameters to be linear by introducing a new variable $litr$; Model F constrains the endogamy parameters (h_{ikl}) to be time-invariant, while the barrier parameters (S_{mkl}) are unconstrained.

^b Only the parametrization of the interaction term is presented, since the rest of the terms in the models do not differ from the general form.

^c For brevity τ_{ijkl} and c_{ijkl} in this case represent all interactions.

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