Modern Love

Potarca, Gina

CHAPTER 2. RACIAL PREFERENCES IN ONLINE DATING ACROSS EUROPEAN COUNTRIES[3]

Abstract

Knowledge on how race governs partner selection has been predominantly studied in the U.S., yet it is unclear whether these results can be generalized to nations with fundamentally different racial and immigration patterns. Using a large-scale sample of online daters in 9 European countries, we engage in the first cross-national analysis of race-related partner preferences and examine the link between contextual factors and ethnic selectivity. We provide a unique test of contact, conflict and in-group identification theories. We show that individuals uniformly prefer to date same-race partners and that there is a hierarchy of preferences both among natives and minority groups. Notable country differences are also found. Europeans living in countries with a large foreign-born population have an increased preference for minority groups. The ethnically heterogeneous Swiss population displays the strongest preference for minorities with the more homogenous Poland, Spain and Italy, the least. Anti-immigrant attitudes and restrictive migrant integration policies are related to stronger in-group preferences among natives. Minorities' in-group preferences are strongly related to their relative group size. The results have implications for immigrant integration policies and demonstrate that Internet dating promotes efficient selection by racial divisions, perpetuating country-specific racial inequalities.

[3] A slightly different version of this chapter is forthcoming in the *European Sociological Review*. Co-author is Melinda Mills. A previous draft of this study has been presented at the Annual Meeting of the Population Association of America in San Francisco, U.S., May 2012, and the European Population Conference in Stockholm, Sweden, June 2012.

2.1 INTRODUCTION

In the U.S., race is one of the most robust criteria for partner selection (Qian & Lichter 2007; Kalmijn & van Tubergen 2010). Preferences for individuals of the same race and reluctance towards different-race partners characterize all romantic relationships, irrespective of their level of commitment (Blackwell & Lichter 2004). But does racial selectivity continue to govern partner preferences online? The Internet dating market benefits from a large pool of potential partners, with theoretically lower structural pressures, which should in turn mean that individuals are free to pursue genuine preferences. Moreover, the online environment brings together people from various social groups that in traditional settings might remain underexposed (Sprecher 2009). Racial boundaries and hierarchies are shown to still prevail among individuals seeking a partner via online dating, both in terms of stated preferences (e.g., Feliciano, Robnett, & Komaie, 2009; Yancey 2009; Feliciano, Lee, & Robnett 2011; Robnett & Feliciano 2011) and first-stage interactions (Lewis, 2013; Lin & Lundquist, 2013).

Understanding how race governs partner selection online (as well as offline) outside of the U.S. context remains scarce. Focusing on a single national context and examining only individual characteristics ignores the contextual variations that likely govern partnership markets. Fundamentally different racial histories and immigrant populations across Europe imply that it is uncertain whether previous U.S. based findings can be generalized (Dribe & Lundh 2008). Moreover, the few studies that address mixed marriages in the European context mainly examine unions between immigrants and natives, employing ethnic and national-origin group divisions, and generally focus on one country (e.g., Germany: González-Ferrer 2005; the Netherlands: Kalmijn & van Tubergen 2006; Sweden: Dribe & Lundh 2008). This lack of comparative research is largely attributed to the diversity of ethnic composition between countries, the coding and registering of ethnic categories, as well as different periods of observation (Lucassen & Laarman 2009).

This study provides the first cross-national analysis of race-related partner preferences of online daters. It does so by examining the 9 European countries of Switzerland, Sweden, The Netherlands, Germany, Austria, France, Spain, Italy, and Poland. In contrast to previous research on intermarriage, our focus on an earlier phase of the partnering process (i.e., the preferences that people mention in their dating profile) permits a unique empirical test of how both individual level attributes and contextual forces shape actual preferences (as opposed to final choices). Previous research examining racial preferences in online dating placed almost exclusive attention to individual characteristics, largely ignoring contextual influences. One

exception is the study by Feliciano, Lee and Robnett (2011), which analyzes the impact of one structural indicator (i.e., percentage of group size) on the racial preferences of a single group (i.e., Hispanics). This paper extends contextual explanations of online daters' racial selectivity by examining multiple contextual indicators (e.g., minority population size, formal and informal climate towards immigration) on the partner preferences of multiple racial groups. We therefore provide a novel test of classic theories of intergroup relations (e.g., contact theory, group threat theory, in-group identification) within the context of online dating.

This study examines different countries across Europe for several reasons. First, the U.S. is a classic immigration country with a specific legacy of racial boundaries, whereas ethnic and racial divides within most European countries only became visible from the second half of the 20th century (Sniderman & Hagendoorn 2007; Hooghe *et al.* 2009). European countries previously characterized as homogeneous in terms of national identity, ethnic composition, language or religious faith, such as France or Sweden, are now exhibiting considerable heterogeneity (Israeli 2008; Meuleman, Davidov & Billiet 2009).

Second, fueled by rapid large-scale non-Western immigration (Bail 2008), Europe has experienced increasing tensions between national majorities and a surge in ethnic and culturally diverse minorities, in particular Muslim groups. While the White-Black divide is the historically prominent racial cleavage in the U.S., racial issues in Europe are dominated by a Native European-Arab (Muslim) division. Third, the status of Europe's recent minority groups differs from that of U.S. minorities (McLaren 2003; Pettigrew 1998). In the U.S., African Americans generally share the same language, religion, and national culture as the majority (Pettigrew 1998), but have a lengthy history of being subject to prejudice and discrimination (McLaren 2003). In contrast, recent immigrant minorities in Europe are more culturally dissimilar from the dominant majority, having migrated to host countries that are recognized for their tolerance (e.g., Sweden).

Finally, there are numerous country-specific differences across Europe, generated by the diverse timing and sources of migration, size of immigrant groups, levels of antiracist attitudes, and citizenship and civic inclusion or philosophies of integration (Favell 2001; Bail 2008; Koopmans *et al.* 2005). Northern and Western European countries (e.g., Sweden, the Netherlands, Germany, Austria, France, and Switzerland) have a long history of migration after WWII, often from Southern European and ex-colonial African, Caribbean and Asian countries (Triandafyllidou, Gropas, & Vogel 2007). France gained a large population from

Northwest and Sub-Saharan Africa, Germany hosted large Turkish communities, while the Netherlands attracted Surinamese, Indonesians and Moroccans (Semyonov, Gorodzeisky, & Glikman 2012). Evolving from emigration into immigration countries, Spain and Italy started to receive large immigrant populations in the late 1980s from Latin America, North Africa, the Middle East and Eastern Europe (Bail 2008). With the fall of E.U. borders, Poland has experienced the emigration of its own workers to Western European countries (Triandafyllidou, Gropas, & Vogel 2007), but hosts few immigrants itself.

The current study also benefits from the use of unique data derived from online dating profile information. Although there are existing studies on interracial dating using Internet data in the U.S., the majority of assortative mating research has often used the proxy of young newlywed couples with census (e.g., Mare 1991; Breen & Salazar 2011) or survey data (Joyner & Kao 2005). To understand how racial preferences are formed and how the social distance between racial groups emerges, it is essential to move from the study of 'successful' interracial marriages to the initial stages of relationship development (Gullickson 2006; McClintock 2010; Yancey 2009). Using online dating profiles and preferences ensures a more direct assessment of individuals' partner preferences. Internet dating information provides a more ecologically valid true-to-life context coupled with an unprecedented scale and level of detail for examining the initiation of romantic relationships. Since an individual's preferences are not exposed to others, we anticipate lower effects of social desirability (Yancey 2009), which is particularly important when examining racial preferences.

In this study, we focus on stated racial preferences for dating partners with a similar (in-group) or different (out-group) racial background. We distinguish between five mutually exclusive categories, which refer to the majority population of Europeans (i.e., the 'native' Caucasian population) and four minority racial groups of non-European origin (i.e., Hispanic, Arabic, African, and Asian), irrespective of birthplace.

2.2 THEORETICAL BACKGROUND

In-group partner preferences

Core theories to explain interracial partnering draw from work on in-group preferences (Fu 2001; Kalmijn 1998) and social distance between racial groups (Bogardus 1947; Blumer 1958). According to Kalmijn (1998), individuals' predilections for members of their own group reflect expectations for cultural similarity and advantages of being matched to a partner with similar values (e.g., mutual behavioral confirmation, certainty of having common interests and lifestyles). Individuals' cultural capital is highly dependent on their racial background. Chiswick and Houseworth (2011) argue that choosing a partner with similar cultural resources enables a more effortless attainment and transmission of cultural 'goods' to the next generation. A strong sense of community and identity within one's own racial group also fuels feelings of separation and unrelatedness towards members of other groups, producing intergroup social distancing and a hesitancy to engage in close interactions with racially dissimilar individuals (Bogardus 1947). Based on these mechanisms, we expect strong same-race preferences amongst all groups.

Racial hierarchy of out-groups

Research on social distances between ethnic and national groups has documented the existence of a ranking system of out-groups (Hagendoorn 1995). The dominant group perpetuates stereotypical and social distance rankings, but minority groups also appear to consent and reaffirm such hierarchies, although to a lesser extent. By perpetuating negative out-group evaluations, the dominant group benefits by reinforcing its high-ranking position and demoting groups that might threaten the status-quo (Blumer 1958). Minority groups distance themselves from similarly positioned groups at the lower end of the scale to preserve a positive social identity (Hagendoorn 1995). Evidence of social distance rankings of ethnic out-groups has been found in the Netherlands (Hagendoorn & Sniderman 2001), Sweden (Snellman & Ekkehammer 2005) and the former Soviet Union (Hagendoorn *et al.* 1998). Due to their culturally and demographically dominant position, Europeans rank first alongside in-group members, whereas Africans and those from the Middle East are positioned at the bottom of the hierarchy (Hagendoorn *et al.* 1998). Africans are equally (least) preferred as partners as Arabs, due to cultural similarities (e.g., patriarchal norms, religion) and recent migration history (Snellman & Ekkehammer 2005). Hispanic and Asian groups generally

hold an intermediate position, similar to their ranking in the U.S. (Bonilla-Silva 2004). This relates to the lengthier time spent in the host country and language and cultural resemblance to the white majority for Hispanics (Snellman & Ekkehammer 2005) or ex-colonial relations for Asians (Verkuyten & Kinket 2000). Based on this evidence, we anticipate that racial preferences across all European countries will be hierarchical, with the European and own group being the most preferred, followed by Hispanics and Asians ranked in the middle, and African and Arabic group individuals as least preferred.

Country-level determinants of racial preferences

Blau (1977, 1994) provides a structural interpretation of in-group preferences and intergroup relations by stating that opportunities to initiate relations with out-group members are the product of structural configurations. Interpersonal choices are highly structurally driven and contingent upon opportunities for interaction. This line of research has largely focused on the constraining role of structural settings on partner choices. The current study is able to shift the focus to an earlier stage of mate selection and examine which racial groups are most preferred as opposed to most chosen. As opposed to assessing how contextual forces constrain partner choices, we are able to evaluate how they shape actual preferences. We explore two contextual aspects that are often associated with racial openness, namely minority group size and climate towards immigration. In doing so, we draw upon a various theoretical approaches and mechanisms related to contact with out-groups, in-group identification, or perceived group threat.

Size of minority population(s)

First, we focus on the racial preferences of the majority group and anticipate that a large minority population (as a whole) reduces natives' racial selectivity. According to contact theory (Allport 1954), frequent interactions with out-group members provide dominant group members with the tools to understand other cultural lifestyles, reducing tendencies to stereotype and discriminate. Numerous studies found a robust association between heterogeneous contexts and increased incidence of interracial unions, suggesting that melting pots attract familiarity and openness for intergroup contact (e.g., Lievens 1998; Bratter & Zuberi 2001). Due to increased exposure to out-groups (Allport 1954; McLaren 2003), we predict more openness in natives' racial preferences in countries with a sizeable minority population.

Large-sized minority populations could, however, also be a source of social anxiety and prejudice among the majority group (Blalock 1967). Conflict theory (Blumer 1958; Coser 1956; Putnam 2007) suggests that the dominant group may experience the growth in minority group size as a threat to economic resources (Quillian 1995) or cultural values (Schneider 2008). This prompts a strong loyalty to one's own group, hinders interracial trust, and results in racial segregation. Based on these mechanisms, we put forth a competing hypothesis, stating that large minority populations increase the racial selectivity of majority members.

Second, we focus on minority members and propose that their relative group size (i.e., the size of their own group in relation to the total population) has a particular impact on non-natives' racial preferences. Members of larger minority groups can identify better with the in-group and are subject to more control from third parties (Kalmijn 1998; Kalmijn & van Tubergen 2006). A sizeable ethnic community is more able to enforce norm conformity and group solidarity, condemning members' contact with out-groups (Vervoort, Flap, & Dagevos 2011). Despite the absence of significant others regulating the partner search process in online dating (Rosenfeld & Thomas 2012), previous research shows that close relationships formed online tend to be assimilated into a person's offline social circle of friends and family (McKenna, Green, & Gleason 2002). Internet daters likely form online contacts guided by the anticipation of third parties' scrutiny. We anticipate that the larger the group, the stronger the in-group identification and influence of third parties and the more prominent the inclination towards same-race partnering among minority daters.

Climate towards immigration

Finally, we propose that differences in racial preferences are also related to country-level variation in formal tolerance and the normative climate towards out-groups (Chiswick & Houseworth 2011; Jacobson & Heaton 2008; Kalmijn & van Tubergen 2010). We include anti-immigrant sentiment and inclusiveness of migrant integration policies to gauge attitudes and regulations towards external groups. An extensive body of literature examining Western European countries provides evidence for rising levels of anti-minority and anti-immigrant attitudes (e.g., McLaren 2003; Semyonov, Raijman, & Gorodzeisky 2006; Weldon 2006). The threat of out-groups strongly influences social cohesion and inter-group contact (Schneider 2008). A tense societal climate surrounding immigration and a restrictive migrant integration regime most likely enhances people's tendencies to date same-race partners and to dismiss contact with people from other racial backgrounds. We consider these indicators of direct

relevance to native Europeans' racial preferences only. Anti-immigrant sentiment and restrictive integration policies capture opposition to immigration among the native group and can illustrate how Europeans' aggregated normative values and legal sanctions exert pressure over their own members. In addition, previous research on immigrants' intermarriage patterns reveals that integration policies play no role in minorities' choices for an exogamous partner (Huschek, de Valk, & Liefbroer 2012).

2.3 DATA AND METHODS

Data and sample

We analyze anonymized profile and preference information of users registered at the eDarling online dating site. In an agreement with the company, data were accessed for all users in September 2011. eDarling is an online dating company that offers services targeted at serious long-term relationships and is currently based in 20 countries in Europe and Latin America, including the 9 countries under focus in this study (which had an active website and database of users at the time of data access in September 2011). The company is one of the largest European partner agencies on the web (Datingsitesreviewed.com 2012). In Germany, for instance, eDarling tops the ranking of online dating services having roughly twice as many users as their main competitor (Süllhöfer 2013).

The website provides the possibility of enrolling as either a non-premium (free) or a premium (paid) member. Non-premium membership includes registration, filling in an entry questionnaire of 283 questions and the chance of browsing through the proposed profiles of candidates, without being able to inspect their photos or exchange e-mails. To gain access to pictures and to establish and react to contacts, a monthly subscription fee is required (premium membership). The entry questionnaire includes a personality test and personal information about the individual (e.g., age, occupation, educational level, race, religion, city, marital history, height, self-perceived physical appeal, lifestyle habits etc.), importance awarded to several aspects (e.g., partner's race, partner's religiosity, partner's physical appearance etc.), as well as preferences for potential partners in terms of age, height, geographical location, fertility history and plans, educational level, income, lifestyle habits, race, and religion. The 'partner proposals' presented to the individual include information concerning basic socio-demographic details, a detailed account of their personality profile,

and self-descriptions, which contain open answers to items such as 'what my partner should know about me', or 'three things that are important to me'.

We focus on initial profile information, and more precisely the selection criteria that users impose in terms of race, as well as their socio-demographic data records when they first fill out their profile. We perform the analyses on a total pooled sample of 58,880 heterosexual members[i] drawn from an original sample of 876,658 heterosexual site users. To avoid computational problems, the European group was undersampled by extracting a random sample of Europeans that equals the size of the largest minority group. Undersampling the group of Europeans (without also extracting a random sample of racial minorities) is comparable to the common practice of over-sampling small sub-populations in studies of race relations (Waksberg, Judkins & Massey 1997) or in studies of intermarriage (e.g., Kalmijn & van Tubergen 2006). Given that a main goal of our paper is the examination of racial preferences cross-nationally, random-sampling sub-populations of minority groups would have drastically reduced the representation of minority groups in certain countries (e.g., Poland). Sampling the sub-population of Europeans while retaining the full sample of minority groups copes with computational limitations, and provides a better estimation of the partner preferences of racial minorities across countries.

Sample Representativeness

A common question is how representative online dating samples are. We therefore now turn to investigate the representativeness of the original sample. Previous online dating studies used samples that overrepresented men, younger (Hitsch, Hortaçsu, & Ariely 2010), and better educated individuals (Feliciano, Lee, & Robnett 2011; Hitsch, Hortaçsu, & Ariely 2010), as well as those with previous union experience (Feliciano, Lee, & Robnett 2011) or living in urban areas (Sautter, Tippett, & Morgan 2010). Some of these particularities reflect the divides in Internet use, with men, younger and highly educated individuals reporting more frequent use of the Internet (Eurostat 2011a).

Given the intention to generalize our findings to the population of Internet-using singles (i.e., the individuals most likely to join a dating service online), we contrast some of the key socio-demographic characteristics of website members to the population of unmarried Internet users (Table 2A). The profile of eDarling users is generally similar to Internet-using singles. However, we notice a few minor differences. Firstly, despite the fact that men are

TABLE 2A. Socio-demographic characteristics of website users versus statistics of unmarried Internet users

	Dating Site				**Unmarried Internet Users**[a]			
Gender distribution (%)								
	Men	Women			Men	Women		
Switzerland	46.6	53.4			53.6	46.4		
Sweden	56.8	43.2			45.6	54.4		
The Netherlands	50.8	49.2			43.3	56.7		
Germany	52.9	47.1			52.4	47.6		
Austria	55.1	44.9			43.8	56.2		
France	45.3	54.7			45.4	54.6		
Spain	43.3	56.7			46.6	53.4		
Italy	55.0	45.0			55.1	44.9		
Poland	53.2	46.8			44.6	55.4		
Average age 18-95								
	Men	Women			Men	Women		
Switzerland	34.9	37.0			34.6	36.7		
Sweden	34.8	37.6			38.2	41.3		
The Netherlands	38.2	37.2			37.5	41.1		
Germany	34.4	34.1			33.5	35.7		
Austria	35.5	36.6			33.6	33.1		
France	32.0	33.5			34.5	36.6		
Spain	34.5	36.7			31.5	31.8		
Italy	36.8	38.5			30.3	28.9		
Poland	30.6	31.6			27.8	30.0		
Individuals with high education (%)								
Switzerland	34.0	34.7			34.6	33.7		
Sweden	39.4	39.2			24.4	36.9		
The Netherlands	36.9	39.1			32.3	32.1		
Germany	27.1	25.7			24.2	27.6		
Austria	31.5	33.7			16.7	19.7		
France	40.7	46.0			36.8	39.2		
Spain	28.4	35.4			36.7	38.7		
Italy	23.9	35.2			26.9	23.3		
Poland	31.9	44.2			23.4	35.7		
Marital history (%)								
	Widowed, divorced or separated		Never married		Widowed, divorced or separated		Never married	
	Men	Women	Men	Women	Men	Women	Men	Women
Switzerland	38.9	57.7	61.1	42.3	24.0	31.5	76.0	68.5
Sweden	42.6	59.5	57.3	40.4	18.7	31.6	81.3	68.4
The Netherlands	41.0	46.4	58.9	53.6	25.6	37.7	74.4	62.3
Germany	37.5	45.1	62.5	54.8	18.7	28.0	81.3	72.0
Austria	45.4	49.5	54.6	50.4	15.8	24.0	84.2	76.0
France	30.3	41.2	69.7	58.8	17.1	27.8	82.9	72.2
Spain	37.3	50.1	62.8	50.0	14.2	14.2	85.8	85.8
Italy	43.2	54.1	56.9	46.0	07.5	09.2	92.5	90.8
Poland	28.8	38.9	71.3	61.1	09.9	21.7	90.1	78.3

Notes: [a] The figures related to the population of unmarried Internet users are calculations by authors based on nationally representative weighted data from the fifth wave of the ESS (2010). Given unavailability of data on Internet use for Austria and Italy in the fifth round of the ESS, we rely on data from the fourth wave (ESS 2008) for Austria, and from the second round (ESS 2004) for Italy. To examine the socio-demographic characteristics of individuals that regularly use the Internet, we selected respondents that mentioned using the Internet at least once a week, based on the following item: "How often do you use the internet, the World Wide Web or e-mail - whether at home or at work - for your personal use?".

TABLE 2B. Racial composition of website versus race-specific statistics of general population

	Dating Site[a]					**General population**[b]				
	European	Hispanic	Arabic	African	Asian	European	Hispanic	Arabic	African	Asian
Relative group size (%)										
Switzerland	93.67	1.21	0.54	0.78	1.41	94.87	1.50	1.01	1.02	1.55
Sweden	87.94	1.36	1.44	1.53	3.10	94.24	0.83	2.54	0.59	1.38
The Netherlands	88.50	1.14	1.00	0.85	3.01	98.23	0.12	0.40	0.18	0.50
Germany	94.43	0.51	0.61	0.55	1.16	98.96	0.10	0.43	0.14	0.35
Austria	96.25	0.30	0.35	0.42	1.01	98.78	0.17	0.39	0.13	0.53
France	84.28	0.71	4.73	4.10	1.09	93.46	0.28	4.29	1.27	0.68
Spain	86.58	8.95	0.94	0.79	0.40	95.45	3.07	1.03	0.22	0.24
Italy	94.24	1.24	0.54	0.85	0.85	97.36	0.68	0.90	0.35	0.71
Poland	97.06	0.18	0.09	0.10	0.24	98.20	0.00	0.00	0.00	0.01
Sex-ratio[c]										
Switzerland	0.87	0.35	1.81	1.18	1.00	0.85	0.47	1.23	0.88	0.71
Sweden	0.99	0.83	3.78	1.37	1.16	0.99	0.94	1.16	1.00	0.55
The Netherlands	1.03	0.76	1.22	0.93	1.09	0.98	0.60	1.01	1.08	0.74
Germany	1.07	0.54	2.30	0.97	1.19	0.96	0.55	1.15	1.16	0.82
Austria	1.02	0.68	4.69	2.00	1.28	0.94	0.50	1.49	1.07	0.80
France	0.82	0.81	0.96	0.68	0.91	0.92	0.74	1.01	0.85	0.81
Spain	1.05	0.54	2.44	3.07	1.65	0.93	0.78	1.21	1.57	0.87
Italy	1.35	0.47	3.93	1.77	0.96	0.91	0.60	1.29	1.20	1.12
Poland	1.11	0.94	1.95	2.19	1.27	0.94	2.61	7.94	6.42	1.49

Notes: [a] The figures correspond to the initial full sample of online daters prior to the random-sampling of Europeans and the exclusion of individuals that declare 'other' races. We draw upon this sample in order to capture the accurate percentages of racial groups on the dating site.
[b] Calculations by authors based on EU LFS (2011) figures.
[c] Sex-ratio is computed as the ratio of men to women in a group.

usually overrepresented online, in Switzerland, we find an over-representation of women. In France and Spain, however, women are over-represented among both Internet daters and Internet-using singles. Secondly, the average age of online daters in Sweden and France is slightly younger compared to the unmarried Internet-users. Another difference is education. Website users are higher educated, particularly in Austria, Sweden and Poland. Finally, the proportion of never married singles on the website is lower compared to the Internet-using singles. What is also apparent is that men and women with previous relationship experience are largely overrepresented. For example, we see that in the broader population of Internet-using singles in Italy, 9.2 percent women are either widowed, divorced or separated compared to 54.1 percent in our sample.

Turning to the racial composition of the website in Table 2B, Europeans are generally underrepresented, particularly in the Netherlands, where majority members represent 88.5 percent, compared to 98.2 percent for the general population. Racial minority populations are overrepresented on the website, with the exception of Arabs in Switzerland, Sweden, Spain and Italy. When we examine race-specific sex-ratios, in the majority of countries, the higher sex-ratio for Europeans on the website reflects the previously mentioned overrepresentation of men. Sex-ratios corresponding to Hispanic or Arabic online daters mirror the sex-ratios

observed in the general population (i.e., more women than men for Hispanics and more men than women for Arabs). Sex-ratios for Africans are reversed in the German, Swiss and Dutch samples. Finally, there appear to be more Asian men than women registered on the website as opposed to the reversed pattern in the broader population.

The fact that divorced, separated and racial minorities are overrepresented confirms that individuals belonging to restrictive partnership markets are more likely to search for a partner online (Rosenfeld & Thomas 2012). The implication on potential findings concerning partner preferences is that certain racial divides might be crossed more often due to more opportunities for online interaction across racial lines (i.e., a more abundant supply of racial minority members). Since male, younger and better educated individuals are also more likely to display more openness towards interracial partnering, our study would only have the disadvantage of underestimating the racial boundaries characteristic of the general population. Conversely, online dating might attract individuals who are particularly choosy about their partner's racial background. This potential selection can be overcome by including a measure of selectiveness (Feliciano, Robnett, & Komaie 2009; Feliciano, Lee, & Robnett 2011). Our study accounts for the value that individuals attach to partner's race, which could point to the strictness of their racial selection criteria.

Measurement of variables

Individual-level variables

We constructed five dependent variables that capture preferences for specific racial groups. The use of broad racial categories across all countries allows us to easily engage in cross-national comparisons. When describing their own race, individuals are asked to place themselves in one of the following seven categories: European, African, Asian, Arabic, Indian, Hispanic (Latin American), or other. In relation to the race(s) of their potential match, users can select between one or as many of the following possibilities: European, African, Asian, Arabic, Indian, Hispanic, other, or any (i.e., it does not matter)[ii]. When filling in the dating profile, users were offered the same list of racial choices in all 9 countries, both in terms of own racial background and preferred race for partner. The question regarding partner's race asks: 'Of which ethnicity (or origin) do you want the person you are searching for to be?' The phrasing of the questions refers to ethnicity (or origin), but the choices presented to the users do not contain ethnic divisions (specific to each country), but broad

racial categories. Furthermore, the choices made by members are kept hidden from other users. The Indian and Asian categories were recoded into a broader Asian category. We exclude online daters who identify themselves as belonging to 'other' racial backgrounds since it is not possible to ascertain membership to any group. We construct five dichotomous outcome variables defining preference for specific racial groups, where a value of 1 indicates whether the user is willing to date Europeans, Hispanics, Arabs, Africans, or Asians. In combination with the variable describing one's own racial background, we can assess both in-group and explicit out-group preferences.

Country-level variables

In this study we examine several country-level variables[iii]. To measure minority population size as a whole, we rely on *size of foreign-born population*, which is a national-level indicator of the proportion of foreign-born residents relative to the size of the total population. The data is provided by Eurostat (2011) and computed by the authors. In the absence of specific statistics or survey-based data on ethnicity or race, examining the foreign-born segment of the population provides the best approximate evaluation of how large the out-group population in each country is within Europe (for a similar approach, see Strabac 2011).

Secondly, we compute minorities' *relative group size* as a proportion relative to the total population of the number of residents belonging to each minority racial group, measured for each country. We use data on the number of non-natives from the 2011 European Union Labour Force Survey (EU LFS, European Commission 2011). The EU-LFS is a large household sample survey providing quarterly results on labor participation of people aged 15 and over as well as those outside of the labor force. We selected the data on respondents' country of birth (defined as the country of residence of the mother at the time of birth) for each country. For Germany, we used information on nationality (which corresponds to the country issuing the passport) given lack of data of country of birth. For the Netherlands, we used 2011 data on nationality provided by Statistics Netherlands. For Poland, we relied on 2001 census data on citizenship provided by Eurostat. Although the Polish census figures are slightly outdated, we opted for this measurement, since it provides a unique amount of information about the racial composition in Poland.

The country of origin/ nationality categories were recoded into broader racial categories. Due to the prevalence of Arabic backgrounds in Northern Africa, for instance,

foreign residents originating from these countries were clustered into one Arabic group, including also those from Near and Middle East. Foreign residents from other African countries were grouped into the African category. The population born in Latin America was coded as Hispanic, while residents coming from East, South and South East Asia were grouped under the Asian category. Based on these aggregated categories, we constructed country-level group size measures for each minority racial group by computing the percentage of Hispanics, Asians, Africans, and Arabs of the total number of respondents/ citizens in each country. We acknowledge that the measures are not optimal in gauging the actual racial composition of countries since they do not account for second-generation immigrants, naturalization (i.e., foreign-born citizens that already acquired the nationality of a European country) or native-born minority groups (e.g., the Roma population in Poland). However, the EU-LFS data are the only reliable up-to-date European cross-national source of information on foreign-born populations. Moreover, given our interest in relative country differences in population composition instead of precise absolute measures, we are confident that the EU-LFS offers the best proxy indicators that are currently available (Schlueter and Wagner, 2008).

Anti-immigrant attitudes are measured by aggregating responses from the fifth round of the European Social Survey (ESS 2010[iv]), using the responses to the questions 'Would you say it is generally bad or good for [country]'s economy that people come to live here from other countries?'; 'Using this card, would you say that [country]'s cultural life is generally undermined or enriched by people coming to live here from different countries?'; and 'Is [country] made a worse or a better place to live by people coming to live here from other countries?' All three questions have 11-point answer scales ranging from 0 to 10 where low values refer to negative assessments of the consequences of immigration. After validating the consistency of items (i.e., Cronbach's alpha values higher than 0.80), a mean score was computed based on the answers to the three questions. To simplify the interpretation of results, the scores have been transposed so that high scores indicate higher anti-immigrant attitudes.

Lastly, *inclusiveness of migrant integration policies* is measured via the Migrant Integration Policy Index (MIPEX, Niessen, Huddleston, & Citron 2007). MIPEX gauges the different policies towards the integration of migrants based on the following dimensions: labor market mobility, education, political participation, long-term residence, access to

nationality, and anti-discrimination. Higher scores represent more inclusive migrant integration policies on a scale from 0 to 100.

Background variables

Education. Each of the nine countries has a country-specific categorization for education, which we harmonize and group following the International Standard Classification of Education (ISCED). We differentiated between three educational levels, which range between: the reference category of low (ISCED levels 0 'pre-primary education', 1 'primary education or first stage of basic education', and 2 'lower secondary or second stage of basic education'), medium (ISCED 3 '(upper) secondary education' and 4 'post-secondary non-tertiary education') and high (ISCED 5 'first stage of tertiary education' and 6 'second stage of tertiary education').

The other control variables include sex (male: reference group); age, recoded into a six-category variable (under 20: reference category, 21 to 30, 31 to 40, 41 to 50, 51 to 60, and over 60); religion, which distinguishes between Christian (reference group), Muslim, Buddhist, atheist, non-religious believer, and other denominations. Marital history is a categorical variable of: never married (reference category), divorced, separated, and widowed. We also control for the importance of match's ethnicity, which is measured via an item that asks: 'What importance do you give to the ethnicity of the person you are searching for?' on a seven-point scale ranging from 1 meaning 'not at all important' to 7 'very important'. Furthermore, we include a binary variable for long-term dating intentions with 1 indicating a strong preference for a long-term relationship, and 0 referring to a low preference. Finally, we control for user's type of membership, which is non-premium or premium.

The online daters provide no detailed description of their ethnic/ racial background (i.e., country of origin, parents' background, generation of immigration, length of stay, legal status). The users are requested to provide self-descriptions, which can only be filled in in the language of the country of residence (using a different language automatically deletes the profile). This could act as a proxy for language proficiency and screens for individuals who are reasonably integrated into a country.

Methods of analyses

Using the *runmlwin* command (Leckie & Charlton 2013) in Stata, we estimate a multilevel logistic regression model for the preferences for the five racial groups (level 1), measured for each online dater, and thus nested in individuals (level 2). The five binary outcomes are considered as repeated measures or, equivalently, as a multivariate outcome. This analytical approach takes the dependency of the repeated binary outcomes into account and offers the possibility to estimate covariate effects for all outcomes (and test whether these effects are equal). Our data also presents an additional level of nesting (i.e., individuals nested in 9 European countries). Employing multilevel analyses that account for the three levels of nesting would lead to biased estimates due to the limited number of upper-level units (Bell *et al.* 2014) and having only 9 countries makes the results vulnerable to outliers and influential cases (Maas & Hox 2005). To overcome this shortcoming, we engage in a country fixed-effects model that includes distinct country dummies. Using two-level logistic regression modeling, we first estimate single and interaction effects of racial background and country (while also controlling for education, gender, age, religion, marital history, importance of partner's race, long-term dating intentions and type of membership). Based on this model, we predict probabilities of preferring each racial group, by own racial background, for each country. Comparable to two-stage least squares regression, we use the estimated preference probabilities for the 9 countries (obtained through the previous model) as dependent variables in a simple linear regression analysis with each of the following country-level predictors: foreign-born population size, anti-immigrant attitudes, inclusiveness of migrant citizenship policies, and relative group size. For ease of interpretation of results, we graph a scatterplot with a fitted regression line for each country-level predictor.

2.4 RESULTS

Figure 2.1 plots the predicted probabilities of racial preferences by own race, based on a multivariate logistic regression model (the model estimates and the statistical significance of predicted probabilities are fully reported in Tables A2.2 and A2.3 respectively in the *Appendix*). Same-race preferences are patterned across the diagonal. The data indicate that daters tend to prefer partners of the same racial background[v]. Furthermore, a hierarchy of preferences emerges among both Europeans and minority groups. Europeans are the most preferred group and generally less willing to be matched with those from other races. In fact,

online daters of all racial backgrounds are more open to dating Europeans than their own group. After Europeans and own group, Hispanics and Asians hold intermediate rankings. Finally, Arabs and Africans are the least preferred.

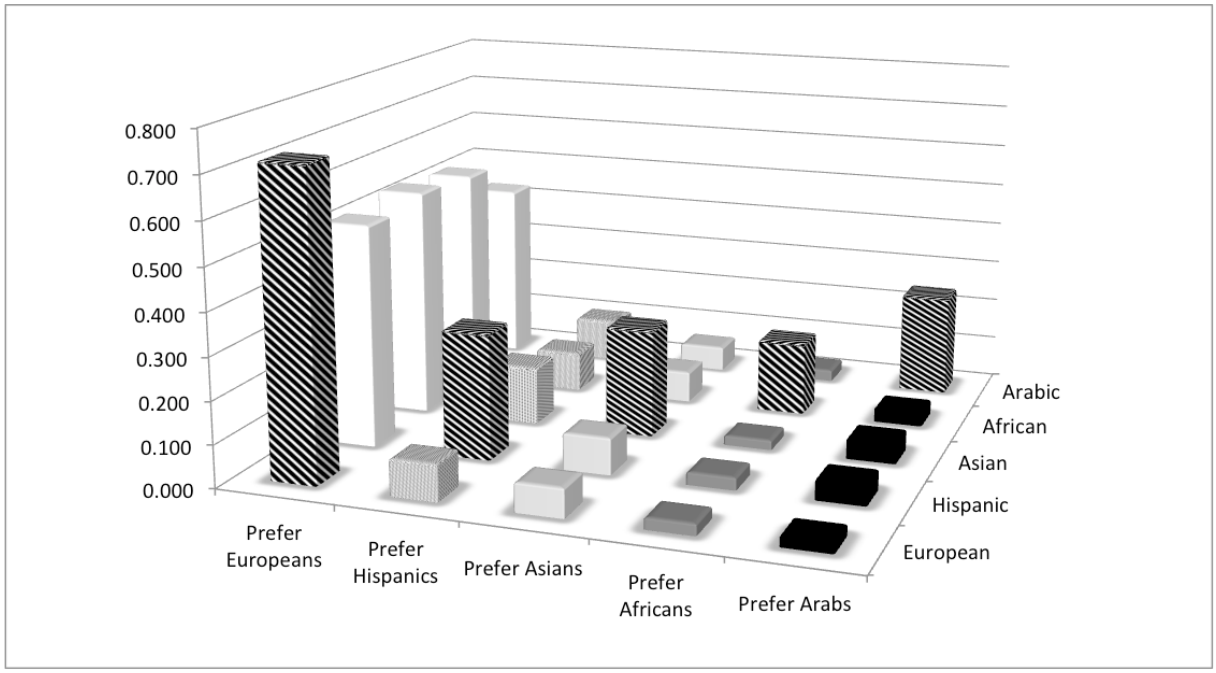

Figure 2.1. Predicted probabilities of preferences for specific groups, by own race (N = 58,880).
Notes: Numbers are based on a multivariate logistic regression model, controlling for education, gender, age, religion, marital history, importance of partner's race, long-term dating intentions, type of membership, and country. Patterned columns across the diagonal indicate same-race preferences.

Figure 2.2 graphs the predicted probabilities of racial preferences by own race for each of the 9 countries, based on significant interactions of race and country in a multivariate logistic regression model. The statistical significance of the predicted probabilities is reported in Table A2.4 in the *Appendix*. Figure 2.2 also reveals striking country differences. Italy, France and Austria have the highest same-race preferences among Europeans, whereas Sweden scores the lowest. Minority members display the highest in-group preferences in the Netherlands and France. In Switzerland, minority members, particularly Hispanics and Asians, appear to have the highest probabilities of preferring Europeans. Europeans in Switzerland have the highest probabilities of preferring minority members. The lowest probabilities of preferring Europeans among minority racial groups are in Poland. Finally, the native Polish, Spanish and Italians are the least willing to date minority members.

To enhance our understanding of country differences, we provide bivariate scatterplots in which we explore each association between country effects and various national-level indicators of racial composition and immigration patterns. Given country variations in Europeans' in-group and out-group preferences, as well as minorities' in-group preferences and willingness to date Europeans[vi], we run simple regression analyses with each of these specific estimates as dependent variable and relevant country-level factors as predictors. We test national differences in Europeans' in-group and out-group preferences against the country-level size of the foreign-born population, anti-immigrant sentiment, and inclusiveness of migrant integration policies. We additionally examine minorities' in-group preferences and specific preferences for the European majority in relation to their relative group size.

The top row of Figure 2.3 graphs Europeans' in-group preferences, as well as willingness to date specific minority groups, in association with the size of the foreign-born population in each country. Results reveal that increases in the share of the foreign-born group are related to both a decrease in the Europeans' in-group preferences and a systematic increase in their out-group preferences. We observe the existence of two poles: Switzerland with a large foreign-born group and high preferences for minorities among Europeans, and Poland with a small fraction of the foreign-born population and a corresponding low preference for minorities among the majority group. We also see a middle cluster of countries with an intermediate level of the size of the foreign-born group and where Europeans have moderate preferences for minorities (i.e., Germany, Austria, the Netherlands, France). With the exception of minority groups where there are language similarities and colonial ties (i.e., Hispanics), Spain is similar to Italy in having an intermediate size of the foreign-born group, but having relatively low preferences for minorities among the native population. Finally, despite being more similar to Western European countries in terms of preferences for non-Arabic minorities, Sweden actually clusters with the Southern European group when it comes to very low levels of preference for dating Arabs among its native population.

The second row of Figure 2.3 relates Europeans' racial preferences to the level of anti-immigrant attitudes in each country. Results show that in countries such as Italy and France, with a pronounced anti-immigrant climate, Europeans have higher in-group preferences. There is no systematic association, however, between negative attitudes towards immigration and the out-group preferences of Europeans. Nonetheless, Italy scores high on the anti-immigrant sentiment scale and consistently displays the lowest preferences for minority groups among the native population. Lastly, despite having the most positive climate towards

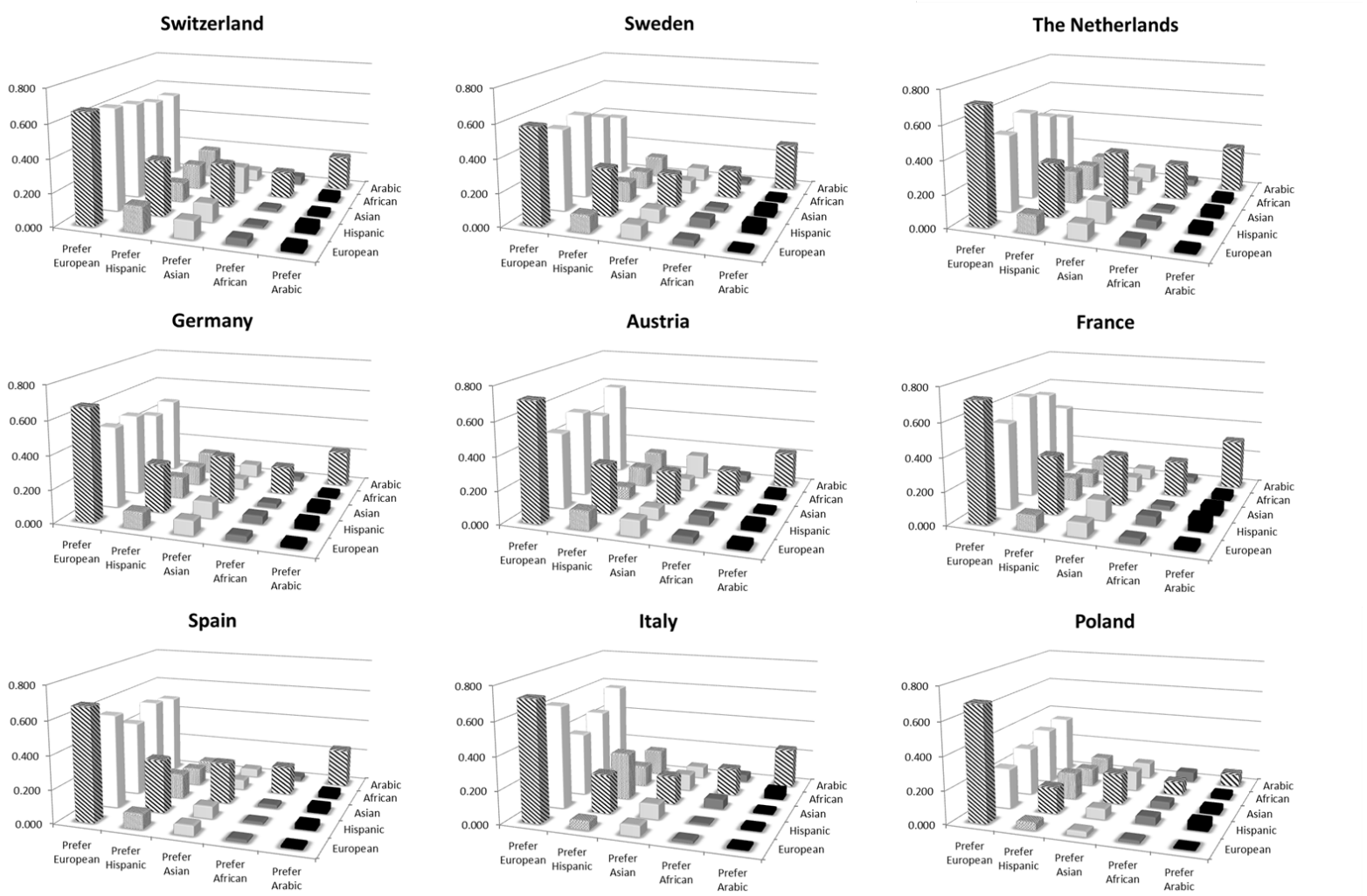

Figure 2.2. Predicted probabilities of preferences for specific groups, by own race, per country (N = 58,880).

Notes: Numbers are based on a multivariate logistic regression model with significant interaction effects of race and country, controlling for education, gender, age, religion, marital history, importance of partner's race, long-term dating intentions and type of membership. Patterned columns across the diagonal indicate same-race preferences.

immigrants, Sweden shows intermediate levels of preferences for Hispanics, Asians and Africans, as well as relatively low preferences for Arabs among the European group.

The bottom row of Figure 2.3 plots Europeans' in- and out-group preferences in connection to each country's migrant integration policies' index value (MIPEX). The bottom-left graph shows that in a country such as Sweden, with strongly inclusive policies, the European majority has the lowest probability of same-race preferences. However, when looking at specific preferences for minorities among the native population, the high degree of inclusiveness in Sweden is only associated with moderate levels of preferences for Hispanics, Asians, and Africans, and very low preferences for Arabs. Furthermore, despite their more restrictive integration policies, the Swiss context is consistently related to high levels of preferences for minority groups among Europeans.

Turning to the patterns of racial preferences among minority groups, we plot (Figure 2.4) minorities' in-group preferences and preferences for Europeans against their relative group size in each country. It shows that minority groups belonging to larger groups, such as Africans and Arabs in France, have higher same-race preferences (top panel, Figure 2.4). Contrary to expectations, increases in relative group size at the country level is also linked to higher probabilities of preferring Europeans among minorities, particularly for Hispanics in Spain, Asians in Switzerland, and Africans living in France or Switzerland (bottom panel, Figure 2.4). For Arabs residing in France however, a larger group size is associated with a rather low probability of preferring majority members.

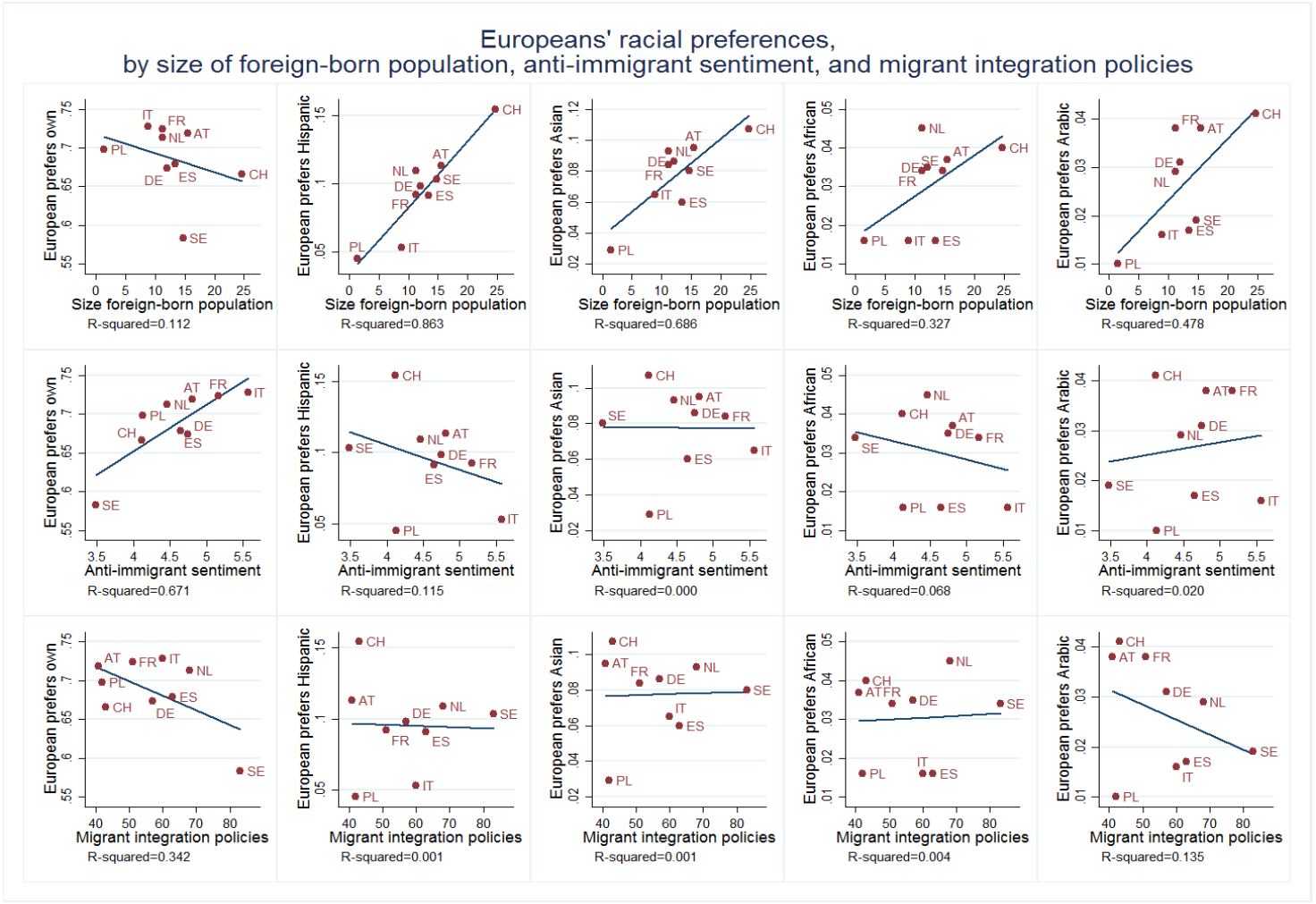

Figure 2.3. Scatterplots of country-specific predicted probabilities of Europeans' same-race preferences, and Europeans' preferences for Hispanics, Asians, Africans, and Arabs, by three country-level indicators (*N* = 9).

Notes: The linear fit and R-squared are based on simple OLS regression estimates. The top row of graphs illustrates Europeans' racial preferences, by size of foreign-born population. The second row illustrates Europeans' racial preferences, by anti-immigrant sentiment. The bottom row illustrates Europeans' racial preferences, by migrant integration policy index.

Country abbreviations: AT = Austria, CH = Switzerland, DE = Germany, ES = Spain, FR = France, IT = Italy, NL = The Netherlands, PL = Poland, SE = Sweden.

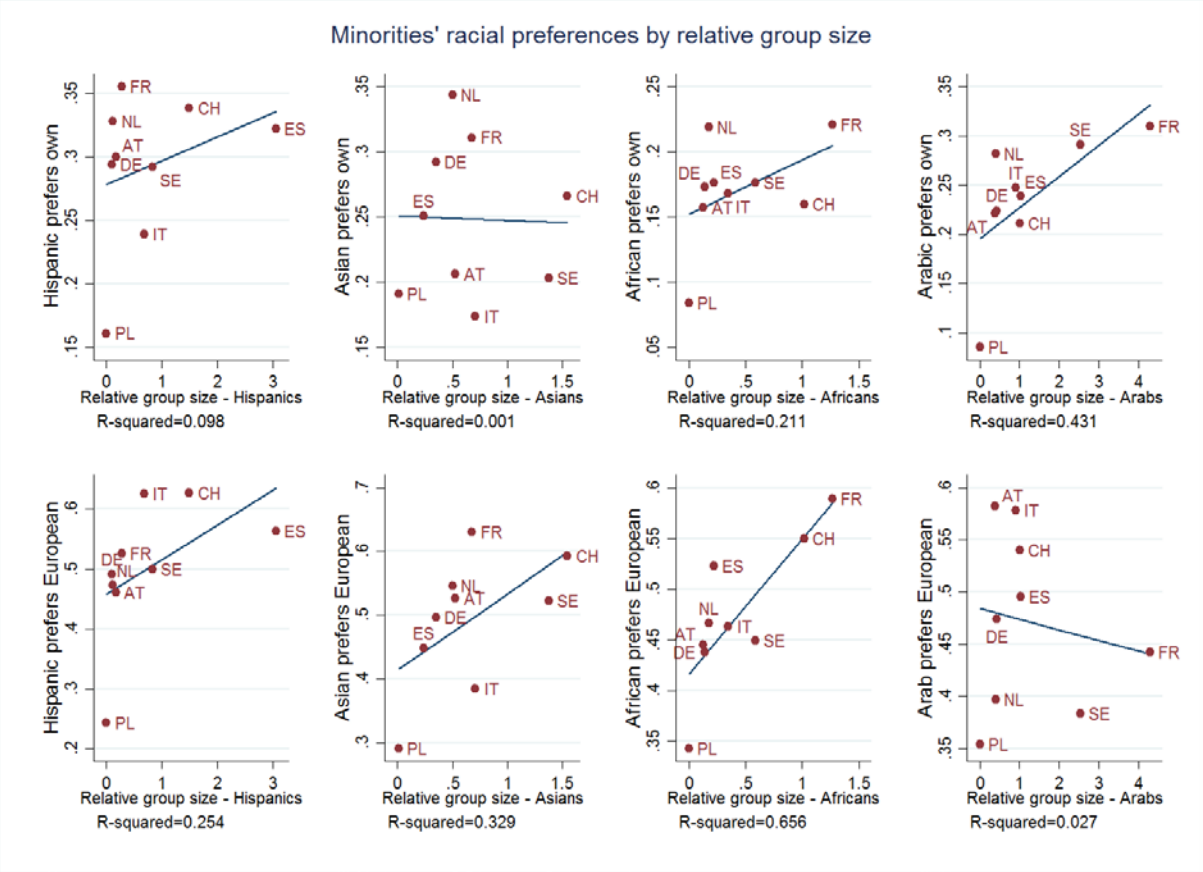

Figure 2.4. Scatterplots of country-specific predicted probabilities of racial preferences and relative group size of each minority population (N = 9).

Notes: The linear fit and R-squared are based on simple OLS regression estimates. The top panel illustrates minorities' same-race preferences. The bottom panel shows minorities' preferences for Europeans. Country abbreviations: AT = Austria, CH = Switzerland, DE = Germany, ES = Spain, FR = France, IT = Italy, NL = the Netherlands, PL = Poland, SE = Sweden.

2.5 CONCLUSIONS AND DISCUSSION

Online dating is one of the fastest growing ways in which individuals in many countries meet a partner (Hogan, Li, & Dutton 2011) and therefore serves as a more immediate gauge or thermometer of wider race relations and integration in a country. There is currently little knowledge about race relations in connection to both intermarriage patterns and online dating choices outside of the U.S. Focusing on a single country fails to acknowledge the pivotal role played by contextual differences and country-specific racial backgrounds. Using online dating profile information, we examined the level of in- and out-group preferences in online dating across 9 European countries. We first found that one's own racial background has a substantial influence on the preferred races of potential partners. Across all contexts, a clear hierarchy of racial preferences emerged, ranking Europeans and one's own group on top, Hispanics and Asians in an intermediate position, followed by Africans and Arabs. Social distances are perpetuated by native Europeans but also racial minority groups, which in the need to distinguish themselves from similarly low-ranked groups paradoxically concede to a biased hierarchy of out-groups. There are similarities with previous U.S.-based research using census or online interaction data, such as pronounced in-group preferences (Lewis 2013; Qian & Lichter 2007) and racial hierarchies (Fu 2001; Lin & Lundquist 2013). However, as opposed to the American context, preferences for the majority group generally exceed same-race preferences, indicating a much more dominant ranking position of the European majority group and a greater inclination towards assimilation among minorities.

The current study significantly extends previous research by showing that previous American results of racial patterns of assortative mating cannot be easily generalized to other nations. Although racial hierarchies are consistent across all countries, clear differences emerge across countries, due to their distinct immigrant populations, anti-immigrant climate, or citizenship and civic integration regimes. The national marriage market plays a considerable role in shaping the in- and out-group preferences of native Europeans. The size of the immigrant population within a country influences the levels of exposure and affinity for external groups (Allport 1954; Blau, Beeker, & Fitzpatrick 1984) and, through that, the willingness to interracially date. Europeans living in countries with a large foreign-born population have lower levels of in-group preferences and increased preferences for minority groups. This indicates that for the majority group, geographical proximity and familiarity with out-groups play a considerable role in alleviating racial divides in romantic relationships,

validating contact theory. Our finding diverges from the heightened nativism and anti-immigrant hostility noticed among Whites in the U.S. in the context of increased foreign-born population (e.g., Jimenéz 2008). The attitudinal climate towards immigrants is another significant factor shaping the racial partnering preferences of the native population. As previously shown, a tense social climate surrounding immigration and the perceived threat of out-groups influence inter-group contact (Schneider, 2008). Negative attitudes towards immigrants at the country level are related to pronounced preferences for one's own group among Europeans. Furthermore, more inclusive migrant integration policies translate into lower preferences for dating same-race partners among natives.

Structural characteristics of national partnership markets also have an impact on the partner preferences of minority groups. Arabic members belonging to large communities are more inclined to express same-race preferences, as well as lower preferences towards Europeans. Increased Arabic group size most likely reinforces ethnic identity and solidarity and potentially leads to a 'retreat from intermarriage' with Whites, as witnessed for Hispanics in the U.S. (Qian & Lichter 2007, p. 90). Consistent same-race preferences among Arabs might be related to stricter religious norms against partnering non-Muslims (Lievens 1998). This demonstrates that in contrast to U.S. findings, the cultural gaps separating racial groups in Europe are often driven by religious disparities in values and practices (Lucassen & Laarman 2009). We also found that Africans living in countries with a high concentration of their own group (e.g., France) have strong preferences for both in-group members and natives, but low preferences for other minority groups as additional analyses (not reported) reveal. This illustrates that increased minority group size can reinforce racial solidarity and endogamous norms, and promote social distances towards lower-ranked out-groups. However, it can also breed openness towards majority members. Previous research also reveals that African minorities in France have a higher propensity to marry natives than in other Western European countries, which is explained by colonial links and pre-migration socialization into French culture (Lucassen & Laarman 2009).

There is a marked pattern of isolation of dating Arabs living in Sweden (i.e., Europeans' lower preferences for Arabs, Arabs' lower preferences for Europeans), despite the country's rather large foreign-born population and its distinctively positive climate and inclusive policies towards immigrants. This is suggestive of the growing cleavage and tensions (The Economist 2013; The Guardian 2010) between the native Swedes and isolated Muslim communities during recent years, potentially fueled by large-scale Arabic

immigration to Sweden, which has been accommodating large numbers of refugees and asylum seekers from conflict-stricken countries (e.g., Syria, Iraq, Afghanistan, Somalia etc.). Switzerland, on the other hand, despite its restrictive migrant integration regime, displays high levels of preferences for minorities among Europeans, as well as pronounced preferences for natives among its minority groups. This echoes the finding by Carol (2013) who reported that natives and migrants in Switzerland are more open towards intermarriage than in other more accommodating countries. These patterns may be attributed to the high educational attainment and employment rate of both its native- and foreign-born population (Eurostat 2011b) or the greater cultural resemblance of migrants with the native group (Carol 2013). However, the high racial openness encountered among Swiss daters should be interpreted in light of the selectivity of online daters. Finally, Poland, which is yet to experience significant immigration, is a unique and highly homogenous country, with small fractions of racial groups and restrictive policies of migrant integration, which in turn breed the lowest levels of interracial openness in partner preferences.

This study also had several limitations. First, we recognize that more refined racial and ethnic categories (beyond European for instance) would be more desirable, but we are restricted by the categories available in our data. Second, we acknowledge the potential selectivity of minority members choosing a mainstream dating website as opposed to a dating platform specifically targeted at their own group. This could overstate the racial openness of minority groups, particularly towards Europeans. Third, the small number of countries limits the possibilities of examining the factors associated with the differences in racial preferences and hierarchies across national contexts in more detail. Nonetheless, our analyses take existing assortative mating research a significant step further and reveal a sizeable influence of contextual factors on racial partner preferences, and not just final choices or recorded successful outcomes. Internet dating does not appear to dissolve ethnic and racial divisions in mate selection but rather enables an efficient selection process that can perpetuate country-specific racial inequalities.

2.6 NOTES

i. Although the website also hosts daters with same-sex preferences, we examine only heterosexual members due to expected differences between the racial preferences of heterosexuals, gay men and

lesbians. Interracial partnering is generally found to be more prevalent among same-sex couples than opposite-sex unions (Jepsen & Jepsen 2002).

ii. Additional analyses (available upon request) indicate that website users who mention they are willing to date "any" race differ from those who have specific preferences. They are more likely to belong to racial minority groups, are male, higher educated, and less interested in long-term dating. Given these selective differences and the focus of our study on racial preferences towards specific out-group partners, we chose not to report or further examine daters lacking any such preferences.

iii. The correlation coefficients of these can be found in Table A2.1 in the *Appendix*.

iv. Due to the lack of information for Austria and Italy in the ESS (2010) data set, the same measures are taken from the data set corresponding to the second round of the ESS (2004).

v. This is particularly noticeable among the highly educated non-Hispanic minorities, as well as European, African and Arabic women. Conversely, Asian women have lower preferences for dating same-race partners than their male counterparts. For more results regarding educational level and gender, see *Appendix*.

vi. There are also several differences in minorities' preferences for other minorities. For instance, in Italy, Asians prefer Hispanics more than their own group, and in Switzerland, Africans prefer Asians more than same-race partners. However, we opt to focus on natives' same- and different-race preferences as well as minorities' preferences for their own group and Europeans given that they yield more striking country differences and are illustrative of the most central racial division (i.e., the majority-minorities divide).