

## NEIGHBOURHOODS AND THE CREATION, STABILITY AND SUCCESS OF MIXED-ETHNIC UNIONS

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The number of mixed-ethnic unions has increased substantially in recent years (Coleman, 2004) with profound effects on the ethnic composition of the population, including the creation of new minority groups of mixed origin.

Previous research on mixed-ethnic unions in the UK uses mainly cross-sectional data from the 1991 Census 1% Household Samples of Anonymised Records (SAR) or the UK Labour Force Surveys (LFS) (e.g. Ballard, 1997; Berrington, 1996; Coleman, 1985; 2004). Most of these studies focussed on the growth of mixed-ethnic unions and none has used longitudinal data to explore changes in the geographies of mixed-ethnic couples. In particular, no study has examined whether living in mixed-ethnic neighbourhoods makes it more likely for people to enter mixed-ethnic unions, or whether those in mixed-ethnic unions are more likely to move into mixed-ethnic neighbourhoods. Nor has any study examined the stability of mixed-ethnic unions and how this may be influenced by geographical context. This study is therefore the first to explore the local geography of mixed-ethnic unions in Britain and to examine the associations of neighbourhoods and mixed-ethnic partnerships using longitudinal data.

### Key findings

- There was a growth in the prevalence of mixed ethnic unions in Britain in the 1990s. However, this growth was not geographically consistent as some regions experienced a decline in the proportion of mixed ethnic unions for some ethnic gender groups.
- Ethnic minority people living in areas with a smaller proportion of their own group were more likely to choose a White partner. Geographical proximity has an important role in the establishment of mixed ethnic unions, and segregation hinders the formation of mixed ethnic unions.
- There was a dispersal of ethnic minority people from areas with high concentrations of their own group, particularly for those in mixed ethnic unions.
- Ethnic minority people who partnered a White person had considerably higher risks of dissolution, compared to those in co-ethnic unions. There was no significant association between neighbourhood concentration and the risk of dissolution for those in mixed ethnic unions.

### Data and methods

#### Datasets

We used data from the Office for National Statistics Longitudinal Study (ONS LS), which is a nationally representative 1% sample of the English and Welsh population including approximately 500,000 people. The ONS LS includes information from the 1971, 1981, 1991 and 2001 censuses. Although an ethnicity question was only included in the 1991 and 2001 Censuses, for some analyses the ethnicity of people in 1981 was back-coded from the later data. Geocoding of the ONS LS allowed additional geographical variables to be attached to ONS-LS members.

We also used data from the Scottish Longitudinal Study (SLS) which includes information from the 1991 and 2001 Censuses. It is a 5.3% sample of the Scottish population and includes about 270,000 people. However, the number of non-White people is relatively small in Scotland so the numbers of mixed ethnic unions was insufficient for some analyses. Hence, we used SLS and LS data to explore the regional growth of mixed ethnic unions, but focus on England and Wales for the remaining research questions.

#### Defining ethnicity

The ethnicity questions in the 1991 and 2001 Censuses were different. In 2001 the question was changed to



capture the rise in the number of people who reported 'mixed-ethnicity'. For consistency across 1991 and 2001, and following previous studies (Platt *et al.*, 2005; Bradford, 2006), we identified five broad ethnic groups: White; Black; South Asian; Other Asian; and Other. In the subsequent analyses we excluded the Other group which is small and heterogeneous.

### Classification of geographical areas

People might meet potential partners at, for example, school, in the workplace, or at leisure venues. Together, these meeting places form the local marriage market area, which can vary in size from the neighbourhood to the city and the larger region. In the study of the formation of mixed ethnic unions, we measured marriage markets at two spatial levels: local government districts and electoral wards. Local government districts contain an average of around 120,000 people and represent regional marriage market areas, while wards contain populations of around 6,000 and represent neighbourhoods, or local marriage market areas. For each of these spatial levels we calculated ethnic group specific measures of the ethnic mix of the population. For example, for Black people the classification was based on the percentage of the Black population in districts and wards. Cut-off points were then chosen so that the Black population was distributed approximately equally across three neighbourhood types (low, medium and high).

## Results

### The growth of mixed-ethnic couples between 1991 and 2001

Table 1 shows the change in the percentage of out-partnering with White people between 1991 and 2001 by ethnic group and gender for England and Wales, and Scotland. The general pattern is one of growth, apart from Other Asian women where there seems to be a drop in the percentage of mixed-ethnic unions with a White partner (from 28% to 20% in England and Wales). The largest increase in mixed-ethnic unions is observed for South Asian women (although the overall rate remains low). The out-partnering rate for Blacks was especially high in England and Wales at 31% for men and 25% for women — the corresponding figures for Scotland were even larger at 64% and 60% respectively, although these were based on very small Black populations.

### Does living in a mixed-ethnic neighbourhood make it more likely that people will end up in mixed-ethnic couple?

We followed single people from 1991 to 2001 and estimated the likelihood of out-partnering with a White person for three minority groups. We controlled for 1991 individual-level variables including age, country of birth, social class, level of education, and housing tenure. We used two spatial classifications of marriage markets (districts and wards) and interactions between districts and wards which allowed us to explore the relative importance of the two geographical levels within the same modelling framework.

To illustrate the impact of neighbourhoods on the propensity to choose a White partner we calculated probabilities of forming mixed ethnic couples by ethnic group and neighbourhood type (Figure 1). All other variables except those measuring mixed partnerships were set to their mean values. Blacks or South Asians in districts with medium or high concentrations of their own group in 1991 were less likely to choose White partners than those living in districts with low concentrations of their own group. People living in areas with a high concentration of their ethnic group in 1991 were least likely to out-partner by 2001. For Blacks, the variation in the probability of out-partnering is more associated with the ethnic mix at the district level than at the ward level; the probabilities vary more across district types than across ward types. It seems that district or regional marriage markets are more relevant than ward or neighbourhood marriage markets in influencing the formation of mixed-ethnic unions for Blacks. In contrast, for South Asians the variation in the probability of out-partnering is more associated with ward level ethnic mix than district level ethnic mix. The pattern is not so clear for Other Asians but the rates shown for this group are based on small numbers and are thus imprecisely estimated.

### Are people in mixed-ethnic couples more likely to move into mixed-ethnic neighbourhoods?

To examine mobility, mixed-ethnic couples were followed from 1991 to 2001. We classified wards into three types by the concentration of each minority group, separately for 1991 and 2001. We identified those who had not moved;

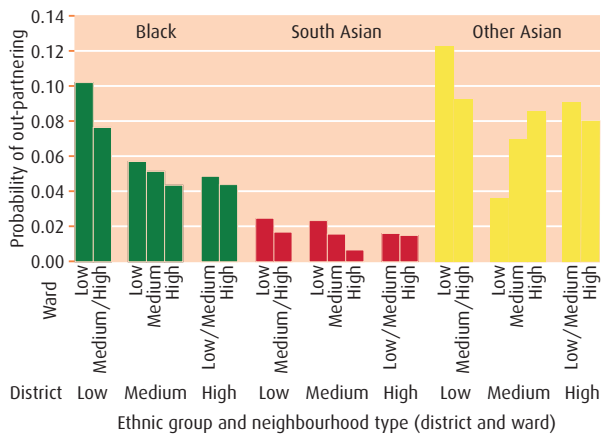
		Men			Women		
England and Wales		Black	South Asian	Other Asian	Black	South Asian	Other Asian
1991	%	23.6	3.9	13.2	15.7	2.2	28.4
	total	3,236	10,556	1,315	2,926	10,338	1,650
2001	%	31.1	4.8	14.3	24.9	3.3	20.2
	total	3,521	12,103	2,215	3,188	12,042	2,199
Scotland		Black	South Asian	Other Asian	Black	South Asian	Other Asian
1991	%	51.5	8.7	15.7	43.5	5.2	27.1
	total	163	841	286	147	806	329
2001	%	64.2	12.1	22.2	60	8.8	24.9
	total	137	976	383	130	940	393

TABLE 1. PROPORTION OF MINORITY PEOPLE IN MIXED-ETHNIC UNIONS WITH A WHITE INDIVIDUAL

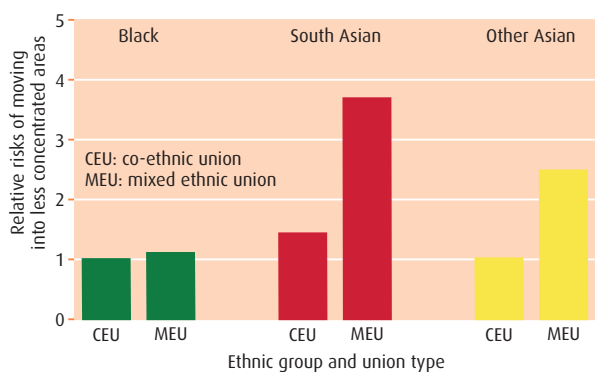
Source: LS, SLS, Authors' calculations



had moved between the similar areas; had moved into less concentrated areas; and had moved into more concentrated areas. Multinomial logistic regression models were used, controlling for gender, age, nativity, marital status, educational qualifications, social class, housing tenure and region in 1991. Figure 2 presents the adjusted relative risk of moving into a less concentrated area compared to moving into a more concentrated area. South Asians had considerably higher propensities to move into less concentrated areas, whereas the propensities for Blacks were not significantly different from unity (1.02 for co-ethnic unions and 1.08 for mixed). South Asians and Other Asians in mixed ethnic unions had markedly higher relative risks of moving into less concentrated areas than those in co-ethnic unions.



**FIGURE 1. PROBABILITY OF FORMING A MIXE-ETHNIC UNION IN 2001 BY ETHNIC GROUP AND 1991 DISTRICT AND WARD TYPE**  
Source: ONS LS, Authors' calculations



**FIGURE 2. RELATIVE RISKS OF MOVING INTO LESS CONCENTRATED AREAS OVER MOVING INTO MORE CONCENTRATED AREAS**  
Source: ONS LS, Authors' calculations

### Are mixed-ethnic couples more likely to dissolve than single-ethnic couples?

Couples in 1991 were followed to 2001. We estimated the likelihood of union dissolution by 2001, controlling for age, nativity, level of education, economic activity for both partners, marital status, housing tenure, number of children, and presence of children under five, geographical region in 1991.

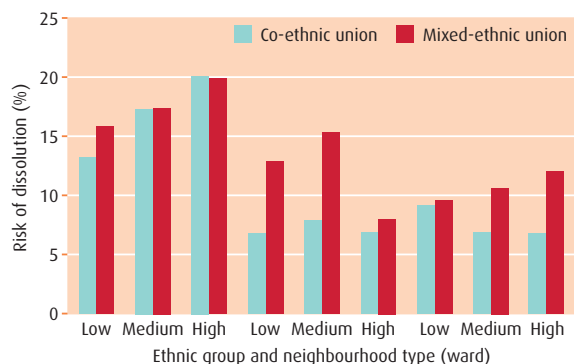
We compared the risk of dissolution of each type of mixed-ethnic couple with the risks for the two respective co-ethnic unions. If the risk of dissolution for mixed ethnic unions was higher than the maximum risk found from the two co-ethnic unions (strong effect); or higher than the average risk found from the two co-ethnic unions (weak effect) we conclude that there is a heterogamy effect; if neither of the above is found, then the risk is not excessive.

We calculated the probability of dissolution for each ethnic/gender group (Table 2). The risks of dissolution for White, Black, South Asian and Other Asian co-ethnic couples in percentages were estimated at 11.7%, 16.3%, 7.1%, and 7.5%. The average of the ratios of all the combinations, appears to support a heterogamy effect: the overall risk of dissolution was equal to the maximum but 21% higher than the average. However, the heterogamy effect varied by type of mixed-ethnic union. The strong heterogamy effect was found for three types of partnerships between a minority and a White individual. For example, the dissolution risk among mixed-ethnic unions between South Asian women and White men was 13% higher than the maximum risk (i.e. the highest risk for White/White and South Asian/South Asian couples). The risk of dissolution among Other Asian women and White men was different from all other mixed-ethnic combinations, as it was almost equal to the average risk (indicating no heterogamy effect).

Men	Woman	Adjusted probability (%)	Ratio to maximum	Ratio to average
White	White	11.7		
Black	Black	16.3		
Black	White	16.1	0.99	1.15
White	Black	16.9	1.04	1.21
South Asian	South Asian	7.1		
South Asian	White	12.3	1.05	1.31
White	South Asian	13.2	1.13	1.41
Other Asian	Other Asian	7.5		
Other Asian	White	11.5	0.98	1.20
White	Other Asian	9.4	0.81	0.98
Average		13.3	1.00	1.21

**TABLE 2. ADJUSTED PROBABILITY OF DISSOLUTION FOR MIXED ETHNIC COUPLES WITH A WHITE PARTNER COMPARED WITH ADJUSTED PROBABILITIES FOR CO-ETHNIC COUPLES, 1991-2001**  
Source: ONS LS, Authors' calculations

The analysis of the risk of dissolution was extended to include the proportion of the ethnic minority population in neighbourhoods (wards) in 1991 as a predictor of dissolution (Figure 3). Blacks, South Asians and Other Asians partnered with a White person in 1991, had a higher risk of dissolution by 2001 in almost all types of neighbourhood. Overall, though, there was no strong statistical evidence that the dissolution of mixed-ethnic unions varied significantly by neighbourhood type.



**FIGURE 3. ADJUSTED PROBABILITY OF DISSOLUTION FOR CO-ETHNIC AND MIXED-ETHNIC COUPLES BY ETHNIC GROUP AND 1991 WARD TYPE** Source: ONS LS, Authors' calculations

## Conclusions

In this project we have systematically examined neighbourhood effects on the formation, stability and success of mixed-ethnic unions in Britain. We found that the growth in the prevalence of mixed ethnic unions between 1991 and 2001 was not even across the regions with some experiencing a decline in the proportion of mixed-ethnic unions for some ethnic/gender groups.

We found that those in minority groups living in areas with smaller concentrations of their own group were more likely to develop a relationship with a White person. Those in ethnic minority groups who partnered with a White person in 1991 had an excessive risk of dissolution compared to those who were married or cohabiting with people from the same ethnic group. However, not all ethnic/gender groups had the same excessive risks of dissolution. Other Asian women who out-partnered with White men had a similar risk of dissolution to in-partnered counterparts.

The growth of mixed ethnic unions and their high propensity of moving into less ethnically concentrated areas demonstrates an increasing social and geographical integration of minority group people into the British society between 1991 and 2001. However, such integration is not without problems as union dissolution is still more common among mixed-ethnic couples.

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