

# How do Children of Mixed Partnerships Fare in the UK? Understanding the Implications for Children of Parental Ethnic Homogamy and Heterogamy

Lucinda Platt<sup>a</sup>

**Abstract:** Many claims are made about the significance of interethnic partnerships for individuals and for society. The traditional assimilation thesis theorised interethnic partnerships as the endpoint of assimilation. Such partnerships continue to be seen as a ‘barometer’ of the openness of society, and have spawned extensive analysis investigating their patterns, trends and determinants. But we know little about the outcomes of children of such partnerships. In the UK, the increase in the self-defined ‘mixed’ population is often celebrated. But there has been little quantitative sociological analysis that has investigated the circumstances of the children of mixed ethnicity partnerships. Using two large-scale UK data sets covering a similar period, this paper brings a focus on how children of mixed unions are faring and brings to bear complementary analytical strategies to evaluate the positives and negatives that marriage across ethnic boundaries has been posited to bring.

**Keywords:** ethnicity, assimilation, UK, intermarriage, mixed race, children

Notes: I am grateful for comments and contributions on earlier versions of this paper from participants in seminars at Stirling University, the Policy Studies Institute, the University of Kent, and the APPAM and INSIDE 2011 conferences. I would particularly like to thank Kate Choi and Randy Capps for their insightful discussions of the paper. I started this paper at the University of Essex and completed it at the Institute of Education, but I carried out much of the work on it during an EC funded Fellowship at the Institute for Economic Analysis (IAE), Barcelona. I am grateful to all institutions for their support.

---

<sup>a</sup> Lucinda Platt is Professor of Sociology at the Institute of Education, University of London. She is Director of the Millennium Cohort Study, a survey of over 19,000 children born in 2000-2001, who are followed over time. She has published widely in the areas of ethnicity, poverty and inequality.

Centre for Longitudinal Studies Institute of Education 20 Bedford Way, London WC1H 0AL, e-mail:

[l.platt@ioe.ac.uk](mailto:l.platt@ioe.ac.uk) tel: +44 207 612 6764

## **Background**

Interethnic marriage has typically been considered as the end point of “assimilation” for immigrant groups (Wildsmith et al. 2003, p. 563). Much early literature on the integration of immigrant groups assumed a progression from relatively segregated communities to realization of greater social opportunities and finally to a situation in which barriers to the most intimate of relationships—marriage— were no longer a feature of group interaction. In this model, any distinction between social-cultural assimilation and achievement of economic status is often elided (Gordon 1964; see also Hwang et al. 1997). In questioning who actually intermarries, studies have tended not to question the implicit significance of interethnic relationships, but rather have explored whether they are associated with economic advantage. For example, Meng and Gregory (2005) examine whether there are identifiable gains to be achieved for a minority group member intermarrying with the majority, though these are not evident for all groups in all countries (Muttarak 2007).

A complicating factor in ascertaining whether intermarriage does in fact bring economic benefits to the minority-group individuals concerned is the extent to which those who intermarry are typical of the minority population or are instead distinctive in that they have particular characteristics, such as a higher educational level not typical of their group (Duncan and Trejo 2005; Furtado 2006; Kantarevic 2004). Some studies maintain that those who intermarry are distinct from those who marry within their group and therefore it is not possible to specify an advantage accruing to intermarriage per se (Kantarevic 2004), but other studies suggest the opposite (Meng and Gregory 2005). Van Ours and Veenman account for the discrepancy by concluding that the “two hypotheses may be complementary rather than competing with each other” (van Ours and Veenman 2008, 5). Both opportunity structures and normative criteria in partnership selection have also been extensively explored in papers on intermarriage (see, e.g., Belot and Fidrmuc 2010). Studies that have plotted the incidence

and trends in interethnic unions across groups and for a range of countries argue that when looking at the determinants—and consequences—of interethnic unions, both individual characteristics and structural constraints need to be taken into account (Hwang et al. 1997; Kalmijn and van Tubergen 2006).

At the same time, there is increasingly a focus on the assumed cultural barriers or obstacles to integration that minority groups confront. Though the focus of these studies has been much more on labor-market participation (particularly of women) and residential segregation than on marriage per se, the family patterns of minorities are also closely linked to issues of “self-segregation” (Battu and Zenou 2010; Bisin et al. 2008: see also Manning and Roy 2010 and Georgiadis and Manning 2011).

Both of these perspectives imply that interethnic partnerships are positive for their participants as well as for society as a whole. In the traditional assimilation perspective, the focus was on the minority integrating, and that focus still dominates most analyses of intergroup relations. However, as well as the potential gains at the individual level, interethnic unions also are perceived as reflecting on society and societal relations more generally. They thus become a cause for celebration and for revealing particular societal values, such as openness and tolerance. For example, speaking of the United States, Fryer refers to “an understanding of the importance of interracial intimacy as a benchmark for race relations” (Fryer 2007, 73). Coleman (1994), in his analysis of intermarriage in the United Kingdom, suggested that intermarriage should be seen as an indicator of assimilation (or “amalgamation”) as well as being perceived as the route by which assimilation is achieved.

Nevertheless, Coleman goes on to question whether amalgamation also indicates economic integration, and other authors have questioned more directly the overall positive inferences drawn from the presence of interethnic relationships. For example, Berthoud (2005) has pointed out that the losses involved in assimilation through intermarriage may be

substantial for minority groups. Model and Fisher make a similar point, but, focusing on the children of such unions, they argue that ethnic affiliation is diluted and that the children are more likely to perceive their identity as “socially constructed and situationally malleable” (Model and Fisher 2002, 729). These analyses do not, however, link directly to the growing body of work that has directly explored the identity claims relating to children of interethnic partnerships (Edwards et al. 2012).

While “mixedness,” that is, mixed or multiple heritages, is often cited as a positive feature of societies, not all of the focus on the increase in mixed populations has been positive. Edwards and Caballero (2008) discuss the tendency by commentators to regard mixed race children as lost or in peripheral positions within a racially stratified society. These authors also draw attention to the public commentary about the appropriate identification of such children as “black,” “black and white,” or as representing the incarnation of racial hybridity and contingent identity (Edwards et al. 2012). Mixed-ethnicity children have also been alleged to experience relatively poor social outcomes, (Barn et al. 2005), but recent analysis suggests rather more positive outcomes (Panico and Nazroo 2011).

Despite the interest in and concerns with “mixedness” and the issues that interethnic unions present for the self-identification of the offspring of such unions (Aspinall 2010; Duncan and Trejo 2005), little direct connection has been made between, on the one hand, studies of interethnic unions and their economic implications, and, on the other hand, the wide-ranging interest in the identity, experience, and development of mixed-ethnicity children. This disparity partly reflects disciplinary differences: Many studies of “mixedness” are qualitative, while attempts to understand the determinants and consequences of interethnic unions are found mostly within the domains of quantitative sociology and economics. Nevertheless, the relative neglect of the consequences of “mixedness” is surprising, given the positive outcomes for intermarriage posited by the assimilation model

and yet the relatively poor average outcomes indicated for mixed children on some counts (Platt 2012; Panico and Nazroo 2011).

One exception to this lack of attention to the outcomes for children of interethnic partnerships is a study by van Ours and Veenman (2008) that compared the educational outcomes for children of one Moluccan and one Dutch parent with those having two Moluccan parents. The study found benefits for those with a Dutch mother and a Moluccan father but not for those with a Dutch father and Moluccan mother. The authors argued that the salient factor was the extent to which mothers were able to negotiate social systems to the benefit of their children, but they also acknowledge that their findings may not apply across parents of different ethnicities (or in other countries).

My analysis considers the structural position and wellbeing of children of interethnic unions compared with those of ethnically homogamous unions in the United Kingdom. It reflects on the implications of their outcomes in the context of an increasingly mixed-ethnicity population (Rees et al. 2011). There is clearly much to be understood about how the children of interethnic partnerships fare in a socially stratified society. The paper uses two nationally representative data sets to take three complementary perspectives on this broader question in an attempt to disentangle different ways in which children's wellbeing might be associated with varying outcomes when their parents are of different ethnic groups, compared with growing up in an ethnically homogamous family. The focus on children is relevant because it is in those families with children where any positive or negative consequences will have longer-term consequences for future patterns of social stratification.

First, I consider the issue of structural or economic assimilation while trying to take account of the endogeneity of interethnic partnerships and economic outcomes. It explores the risks of living in a workless family, that is, where no adults are employed, for otherwise similar families according to whether they are ethnically homogamous or heterogamous. If

interethnic partnerships are markers of assimilative processes that are associated with more positive child outcomes, then we would expect this to be reflected in the economic circumstances of these couples and their offspring. However, if there are gains to be had from communal resources that are lost to multiethnic families (Furtado 2006), rather than being doubled through potential access to two networks of communities, then such positive outcomes may not materialize.

Second, the analysis explores whether there are any apparent strains associated with the formation or maintenance of an interethnic (or a homo-ethnic) partnership that affect children growing up in workless families. It does this by looking at two indicators of potential strain that are associated with poorer outcomes for children: lone parenthood and maternal depression. It should be noted, however, that in the case of lone parenthood, it is the poorer economic situation that frequently accompanies lone parenthood that is the major determinant of poor child outcomes, rather than the family form itself (Schoon et al. 2011). This analysis also considers the missing part of the story for interethnic relationships have born a child together but are living apart. The potential positive selection of those who remain as couples in analyses of interethnic (or co-ethnic) partnerships may lead to bias in our interpretation of the positive experiences associated with such partnerships if the less successful ones are more likely to break down.

The final section of the analysis explores whether having parents from different ethnic groups has a direct effect on children's adjustment, either positively or negatively, after accounting for factors associated with differences in early social-behavioral adjustment. This not only gives us some indication of the direct experience of the different parental environments on children, but also allows us to examine whether differences in child outcomes begin to emerge within the family context.

By looking at the experiences of children with parents of different ethnic groups, this paper can complement direct analysis of those of mixed ethnicity (see, e.g., Platt 2012). By identifying whether and how early differentials in experience emerge, it can also act as a barometer of the extent to which ethnicity still matters over and above the social location and interaction of individuals. Within a context in which mixed-ethnicity families are consistently celebrated as marking the end of an ethnically stratified society, the empirical findings can provide some foundation for such claims. From a policy perspective, the analysis can provide a valuable intervention into debates on cultural distance and whether it makes sense to so closely link the economic and the social in discourse and policy.

### **Overview and Data Sources**

After outlining the broader patterns of interethnic partnership in the United Kingdom, this section briefly describes the two data sets used to explore the three questions posed above. The first part uses pooled waves of the Household Labour Force survey from 2002 to 2005 to estimate differences in workless family status, using propensity score matching in order to compare families that are similar in key respects, apart from the ethnic composition of the co-resident parents. The next section draws on the Millennium Cohort Study (MCS), a longitudinal survey of children born around 2000–2001, to investigate their family context at nine months of age and how that varies with parental ethnicity. It draws on the information collected about nonresident as well as resident partners (fathers) from the mothers at the time of the interview. The last part of the analysis exploits the MCS’s longitudinal design to investigate whether differences in parental ethnicity at nine months affect children’s emotional-behavioral outcomes at age three, before the children experience the major change in social context and influences that comes with starting school. By bringing these different data sources and strategies together, the analysis engages assumptions about the interconnectedness of different types of “assimilation” in an intergenerational context and

their wider implications for equality and child welfare policies. The final section of the paper draws some initial conclusions and indicates future lines of inquiry.

In the absence of a receptive social context, interethnic partnerships may bring additional pressures for families and family members, including choices about location in predominantly majority or more “mixed” areas, or the partnerships may bring advantages for children, as the van Ours and Veenman (2008) study showed. Within the constraints of data resources for what is a rare event among small populations (see Table 1), this study cannot evaluate all the complexities of behavioral responses and settlement decisions. It aims instead to provide insight into the extent to which the United Kingdom is open to different ethnicities and highlight the potential costs of partnering outside one’s own group in an ethnically stratified society. Such an evaluation is not intended to suggest that interethnic partnerships are somehow good or bad, but rather to provide an additional means to reflect on the consequences of current social organization.

**[TABLE 1 about here]**

Interethnic marriages or partnerships are, as noted, still relatively uncommon despite the extensive attention paid to them. They do, however, show substantial variation by specific ethnicity. For example, in the United States 1 percent of marriages involving a white person, 5 percent of black marriages involving a black person, and 14 per cent of marriages involving an Asian person were “interracial,” where the relative population proportions were 87.3 percent, 11.3 percent and 1.4 percent (Fryer 2007). For the United Kingdom, rates vary according to which source is used and when they are measured, but interethnic partnerships are also uncommon.

Table 2 provides recent estimates alongside the rates of partnership overall. Analysis of interethnic partnerships has tended to focus on marriages, but some analysis has also considered cohabiting partnerships and the differences between the two types of unions

(Muttarak and Heath 2010). Muttarak and Heath (2010) found that inter-ethnic partnerships were more common among cohabiting than among married couples. This was true across groups, though to differing degrees. They suggested this could be interpreted in two ways. First, the cohabitation could avoid the additional complications in embarking on a formal marriage across ethnic group lines. Second, those who cohabit could be less conventional in both their attitudes to marriage and to ethnic homogamy. In this analysis partnerships and marriages are considered together for two main reasons. First, in the Labour Force Survey analysis, the interest is in family work status, specifically the work status of the two parents who are currently living with the child. From this perspective, it is their co-residence that is of primary interest rather than the legal status of their relationship. Second, in the MCS analysis, the fragility of relationships, represented by parents being nonresidents at relatively young ages, is part of the investigation. To differentiate between possibly more stable marriages and less stable cohabitations would clearly confound this analysis. A third, more pragmatic, reason is that combining cohabitations and marriages gives greater purchase on the issues through slightly larger sample sizes.

A further issue in considering interethnic partnership is that of what constitutes a “match,” in light of variable precision in measurement of ethnicity. For some groups, notably the groups designated “other” and “mixed” that are frequently aggregated due to their small numbers, evaluating what does and does not constitute a co-ethnic union is not straightforward. An “other”-“other” union might represent a partnership between the similar ethnicities in some cases but not in others. For those in the mixed groups, exact matches are likely to be rare, while matches within the aggregated mixed group (as used in some census analysis) are unlikely to represent ethnically homogamous unions. Assuming that for individual mixed groups either part of the heritage can be used to represent a homogamous union, for example that a person of white and black Caribbean heritage can be considered

“matched” with either a white person or a black Caribbean person (Belot and Fidrmuc 2010), is perhaps to deny the racialization of ethnicity within the United Kingdom. For this analysis, the focus is on the larger non-mixed, non-“other” minority ethnic groups and the white British majority. These represent relatively stable categories (Simpson and Akinwale 2007). Any partnership between people from one of these groups and any other group is deemed an interethnic partnership. In most cases, for minority groups this will constitute a match with a majority group partner. However, partnerships involving a different minority group are included in the current analysis because many of the same arguments relating to social openness or cultural loss still apply.

**[TABLE 2 about here]**

The variation by ethnic group in the chances not only of being in an interethnic partnership but also of being single is evident in Table 2. In addition, there are clear gender asymmetries for some groups. These patterns are not dramatically altered if only those who are born in the United Kingdom are included, or if only those who are in families with children are included. Rates of interethnic partnership are somewhat lower among minorities in couples with children than among those in couples without children, though there has been less systematic analysis of the children interethnic partnerships (Platt 2009).

*The Household Labour Force Survey (HLFS)*

The HLFS is a household-level data set constructed from the quarterly Labour Force Survey. The Labour Force Survey is a short panel study. Respondents are interviewed for five successive quarters. About 60,000 respondents are interviewed each quarter, comprising a mixture of those at their first to fifth interview. It has an unclustered sample design and is representative of the U.K. population. The HLFS is a derived data set that is designed for analysis at the household (couple) rather than the individual level. Two data sets of the HLFS are constructed and released each year.

To create a sufficiently large sample for analysis, eight data files covering Autumn 2001 to Spring 2005 were pooled. The period thus covers roughly the same time span as the Millennium Cohort Study data used in subsequent sections. The rates of interethnic partnerships in these data were checked against those found in the 2001 Census (Office for National Statistics 2005), and there was a high degree of congruence between the two.<sup>1</sup> The eight files from this period have been merged and are weighted by the appropriate weights for each period. Multiple observations on the same respondent were dropped from the sample to ensure unique respondent families in the pooled data. The small number of cases missing ethnic group were dropped, as were those where the “head” or “spouse” was missing from couples. In addition, single-sex couples were excluded. When restricted to couple families with children under age 16, the final sample comprised 38,000 cases.

The HLFS collects a range of variables related to labor-market experience and status as well as education and training, health status, receipt of benefits, earnings, and some demographic variables including ethnic group. A selection of these have been used to match individuals in the analysis, namely education (highest qualification) of both parents, region, age of the mother, age of the child, whether the mother was born in the United Kingdom, and the health status of the mother, as well as ethnic group. The outcome of interest across the matched groups is the family-level worklessness (i.e., neither parent in paid work). In all, analysis weights are applied to adjust for nonresponse.

#### *The Millennium Cohort Study (MCS)*

The MCS is a birth-cohort study of over 19,517 children sampled from all those born in the United Kingdom between September 2000 and January 2002, who are followed over time (Dex and Joshi 2005). The sample was selected from a random sample of electoral wards, disproportionately stratified to ensure adequate representation of all four U.K. countries, deprived areas and areas with high concentrations of families from black and South

Asian minority ethnic groups. The main respondents are predominantly mothers, but resident partners are also interviewed at each wave. Main respondents are asked a few questions about nonresident partners.

Surveys took place when children were about nine months old and at around three, five, and seven years old. The longitudinal design facilitates analysis of different types of outcomes and at different stages of the child's life, and how these relate to earlier experiences and family background.

The survey is characterized by rich content from multiple participants: information on child health and development, parental pre- and post-natal behavior, relationships within the family, cognitive outcomes, schooling, and so on. Alongside its particular sample design it allows extensive analysis of child outcomes in relation to family, demographic and economic context, parenting practice, and parental health status.

At the nine-month sweep of the survey, information on family structure and on maternal depression is used as outcome variables. Parents' ethnicity (whether or not co-resident with the child) that was collected at nine months, was used to construct a measure of whether the couples were mixed or homogenous ethnic groups. This measure or interethnic partnership of parents was interacted with ethnic group. It was included in the model alongside controls for maternal education, siblings, family income, and mother's age. The measures in both the HLFS and the nine-month sweep of the MCS are intended to capture structural experiences that have been shown to put children more at risk of poorer outcomes later in life.

At age three, the dependent variable is children's emotional-behavioral outcomes, measured by the Strengths and Difficulties Questionnaire (SDQ). Behavioral outcomes have been selected as a specific wellbeing outcome to explore, because the logic of the preceding analysis suggests that interethnic partnerships may be subject to greater social constraints and

pressures than single-ethnicity partnerships. Thus, these pressures might be expected to follow through, if at all, in the realm of behavioral outcomes. The age of three is selected because this represents a time when children are subject to family influences but are still in their preschool years. The focus on the sweep at age three allows a focus on children's familial context. As well as interethnic partnership interacted with ethnic group, additional controls included from the survey's sweep at nine months old comprise maternal depression, family structure, maternal education, sibling status, and child's sex. All analyses using the MCS are adjusted for the complex sample design and for nonresponse.

### **Risks of Living in a Workless Family**

Turning to the analysis of the HLFS, in the estimation sample used the rates of interethnic partnerships were that, overall, seven percent of couples with children comprised partners of different ethnic groups. Similarly, seven percent of children living with two parents were living with parents of different ethnic groups. However, as the subsequent analysis shows, those who do not live with two parents may be somewhat more likely to have parents of different ethnicities. The overall rates of interethnic partnerships with children are relatively low, then, though they vary considerably by ethnic group, as Table 2 shows.

The approach employed here is to explore the extent to which children "benefit" from interethnic partnerships, after netting out some of the factors traditionally held to account for such partnerships, typically education. That is, the approach estimates the extent to which children growing up in interethnic—as opposed to co-ethnic—partnerships are more or less likely to be living in a workless family at a point in time. Propensity score matching (PSM) was used to compare the outcomes of children living with parents of different ethnicities (treated) compared to those living with parents of the same ethnicity (untreated). There has been a noted increase in polarization of work at the household level, with an increase in both work-rich and work-poor households over recent decades (Gregg and Wadsworth 2001).

Household or family worklessness has been identified as being detrimental for child outcomes over and above the low income it entails (Ermisch et al. 2004), and it varies by ethnic group in the long and short term (Platt 2010). Thus, worklessness could be seen as a significant risk factor that might be affected by compositional household factors such as discrimination risks faced by both partners or dislocation from traditional opportunities for work resulting from industrial restructuring or firm relocation. Family worklessness also has a benefit over individual measures of employment status because being in a working household does not require both parents to have jobs and thus in principle is not subject to debates over cultural preferences for particular gendered working-caring patterns within households (Dale et al. 2006).<sup>2</sup> Overall, there was a higher probability of being in a workless family for children with parents of different ethnic groups. However, given the numerical dominance of the white majority population, the overall rates were driven by that group.

When broken down by ethnic group and distinguishing the ethnicity of mother and father, Table 3 reveals that, with certain exceptions, interethnic partnerships appear to lower the chances that children will live in a workless family. Given what we know about selection in relation to interethnic partnerships (Kalmijn and van Tubergen 2006)—that is, that those who marry across ethnic boundaries differ in several respects from those who marry within, with minorities who marry out typically being more highly educated—this may well simply represent the more highly qualified status of those parents in interethnic partnerships.

**[TABLE 3 about here]**

A priori, it was not clear that, once matched, the circumstances of children of interethnic parents would be more salutary than those of youth with parents from the same ethnic group. The matching was intended to reveal the extent to which those who partnered across group boundaries and had families together had access to economic advantages associated with assimilation over and above these selection effects. As noted above, this

could help to shed light on the nature of ethnic stratification in the United Kingdom today by shifting the focus to the next generation rather than focusing primarily on labor-market outcomes of adult minorities and migrants.

Drawing on Leuven and Sianesi (2003), the approach used nearest-neighbor matching, matching on age of child, mother's age, region, mother's education (highest qualification), father's education, mother's health status, and whether born in the United Kingdom. A larger range of potential variables for matching were explored initially, but those chosen for the analysis were limited to those having comparable distributions across matched samples.<sup>3</sup> Because the number of individual models estimated was substantial, the following discussion summarizes the key points of the analysis. The estimates are also illustrated in the second panel of Table 3.

Without accounting separately for ethnic group, the results showed a difference of 2.4 percentage points in worklessness experienced by children in interethnic compared to mono-ethnic families. That is, 8.3 percent of those in mixed-ethnicity families were living in workless families, compared with 5.9 percent of those in matching non-mixed households.

To explore differences taking account of specific ethnicities, matching was carried out in turn on the ethnic group of the father or mother. Focusing first on mothers, differences in chances of family worklessness were estimated for those whose mothers were and were not in interethnic partnerships. Estimates showed that, comparing the matched cases, those families with a white British mother still experienced around a one percentage point higher risk of worklessness when in mixed parentage compared with ethnically homogenous families. Conversely, where White British fathers were living with a minority group mother, the chances of family worklessness were also greater, by around three percentage points. This might indicate some form of ethnic hierarchy in terms of partnership selection.

The picture is more varied, and therefore interpretation complicated for the minority groups. Children with an Indian mother had a three percentage point lower chance of living in a workless family if their father was of a different ethnic group, typically a majority group member. This benefit was greater among those with a Pakistani mother, where living in a mixed-parentage family reduced the estimated risk of worklessness by seven percentage points, from 14 percent to seven percent. By contrast, those living with a Caribbean mother in a mixed-ethnicity couple had a seven percent greater risk of living in a workless family than those with two Caribbean parents. However, when matching took place on fathers, the matched group showed no statistically significant variations in risks of worklessness based on whether the father was or was not partnered with someone of his own ethnic group. This was also the case for Pakistani men. In both cases, this contrasts with the raw differences shown in Table 3, and indicates a high degree of selectivity for these two groups among those who partner with someone of a different ethnic group, albeit in opposite directions. Among Indian men the chances of being in a workless family were lower for those with partners from a different ethnic group.

These results suggest that several factors influence the labor-market position of minority-groups. Firstly, the labor market position of men is key, such that white British women with children partnered with minority-group men have a higher risk of their children growing up in a workless family than minority-group women partnered with a majority group man. The fact that White British men have a higher rate of worklessness and Indian men a lower rate of worklessness when living with someone from a different ethnic group may suggest that differences in labor market position matter, with some minority group women much less likely to be employed. However, if this was the case, we would expect to find a difference for Pakistani men partnered with a white woman (or other ethnic group), compared to Pakistani men partnered with a Pakistani woman, because Pakistani women have one of

the lowest rates of participation. There is also no difference for Caribbean men partnered with a Caribbean woman compared to Caribbean men partnered with a woman of a different ethnic group, even though Caribbean women have the highest market participation rates among women. Therefore, it is hard to make a case that women's labor market participation rates are instrumental in the chances of children living in workless families. However, the results could reflect patterns of selection not captured in the matching, whereby exposure to those of different ethnic groups is implicated in more highly selected marriages for minority group men and women. Conversely, for White men and women, partnership with a minority group may reflect regional variations in opportunities to many out of their group that correspond to variations in patterns of workless patterns, possibly combined with a more conventional division of labor.

On balance, the data suggest that, rather than economic and social assimilation being coterminous, the economic position of different ethnic groups is significant in shaping family experiences almost regardless of the ethnic composition of partnerships. That is, parents can match across ethnic boundaries without that implying equality in the economic sphere. The outcomes for children are thus particularly susceptible to the labor-market position of their fathers. While this might seem self-evident once demonstrated, it is important to note that it is at odds both with the conventional assimilation hypothesis that underlies much of the investigation of interethnic partnerships, and with cultural accounts of ethnic labor-market position (Bisin et al. 2008; Battu and Zenou 2010).

The story though is slightly different for children with Caribbean mothers. The fact that those living with a Caribbean mother and majority-group father had a higher risk of worklessness than those living with two Caribbean parents, despite the well-known excess unemployment rates of Caribbean men, would appear at odds with a structural account. It is important to note the very different incidence of interethnic partnerships among this group

(see Table 2) alongside the high rates of lone parenthood among Caribbean mothers (see, for example, Table 6). In a context where marrying out is more the norm than the exception, and where partnerships are less likely to be cohabiting ones in the first place, the interpretation of differences between inter- and co-ethnic cohabiting partnerships can be expected to change.

Much attention has been paid to the relatively high employment rates of Caribbean women with children, including lone mothers, compared with other mothers (see Reynolds 2005). If these patterns are shaped by partnership experience, it may mean that Caribbean women in interethnic couples are less likely to work and therefore to help avoid worklessness within the family. That is, women in such partnerships may follow more conventional (normative) gendered patterns of division of labor. In addition, in the United States there have been discussions of the extent to which parental cohabitation may be contingent upon the work status of the father (Wilson 1978). This hypothesis has also been suggested for the United Kingdom, given the very different unemployment rates (and lone parenthood rates) that pertain across minority ethnic groups. If so, it might indicate that Caribbean women with children are more likely to have employed partners when in *cohabiting* co-ethnic relationships, as they would be more likely to remain lone mothers if the father of their children is unemployed. Thus, in this case, the economic sphere would be shaping observed patterns of family life rather than being independent of it. Conversely, in interethnic partnerships there may be processes of segmented assimilation (Portes and Zhou 1993) at play, which indicate that the social integration is interlinked with less favorable outcomes for certain groups (Peach 2005). There would therefore appear to be group-specific ways in which family dynamics interact with structural constraints.

## Maternal Depression

Extensive analysis on the Millennium Cohort Study has highlighted a range of risk factors for subsequent child outcomes, both behavioral and cognitive. These include maternal depression (Kiernan and Mensah 2009), low socioeconomic status (Schoon et al. 2011; Ermisch 2008), and various aspects of parenting (Ermisch 2008). Family structure has been found to have only limited explanatory power *net* of other factors with which it is strongly associated, such as poverty, maternal depression, and so on (Schoon et al. 2011), but in absolute terms it represents a major risk factor for children. Lone parenthood rates also differ substantially across ethnic groups and may indicate a range of obstacles to maintaining a conventional relationship with the father, which could conceivably be exacerbated for relationships that cross ethnic divides in an ethnically stratified society. Maternal depression is also known to show variation across ethnic groups and may also signal additional pressures faced by the family. These two risk factors are therefore explored in the first survey of the MCS families, when children were nine months old.

The MCS, unlike many other surveys, collects some minimal information, including ethnic group, on nonresident partners. This means it is possible to measure the ethnicity of the millennium babies' parents regardless of whether they are both co-resident. In turn, this allows us to examine whether the probability of lone parenthood, identified here as a risk for children's subsequent outcomes, is more or less likely for parents of the same ethnicity compared with those of different ethnicities.

These data are not susceptible to the matching approach that was used to address the endogeneity issues in the Labour Force Survey analysis, and thus the relationships can be regarded only as indicative. However, the analysis provides a complementary perspective to the first set of results and enables a fuller insight into the experience of children growing up in mixed-ethnicity families. Probit regressions were estimated to determine the chances of

millennium babies living in a lone-parent household or living with a mother experiencing maternal depression, controlling for a limited range of family variables that are indicators for these two family outcomes.<sup>4</sup> An interethnic partnership dummy was included in the models and was interacted with mother's ethnic group to ascertain if any association varied by ethnicity. Interethnic partnership was further interacted with maternal education in order to take some account of the ways in which educational selection plays out different ethnic groups in interethnic partnerships.

Table 4 shows the results from these two probit regressions. The maternal-depression model indicates that there was no significant relationship between parents from different ethnic groups and maternal depression (controlling for lone-parent status). This indicates that we cannot reject the null hypothesis that interethnic partnership is unrelated to maternal stress levels across ethnic groups, and there is thus no evidence that family stress is specifically impacted by mother's cross-cultural partnering and societal reactions to it.

**[TABLE 4 about here]**

However, having parents from different ethnic groups was significantly associated with the chances of lone parenthood. It is not possible to infer any causal relationship from this analysis, but it is tempting to speculate about the extent to which intimate relationships across ethnic boundaries are simply harder to sustain—or to normalize in conventional forms such as cohabitation or marriage—even when they result in children. To identify the scale of the effect and also to explore the interaction effects and examine the extent of variation across ethnic groups, predicted probabilities were calculated at the means of key variables and varying by maternal education (high or none). Table 5 shows these selected probabilities for white, Indian and black Caribbean mothers. Not all of the differences are statistically significant, but they do show, once again, how the relationship between mixed-ethnicity parents and risk factors varies according to mother's ethnicity. The levels vary so

substantially across ethnic groups that they tend to dwarf the differences across partnership type.

Results show that children of both Indian and white mothers are more likely to live in lone-parent households at age nine months if their fathers are from a different ethnic group than their mothers. This is consistent with the relationship-strain thesis, and is a finding that cannot be picked up by analyses that explore only the experience of married or cohabiting couples. This pattern is also found for black Caribbean mothers who are highly educated, but the reverse relationship is found for black Caribbean mothers with lower educational qualifications. It is worth noting that the reverse relationship obtains among groups where lone parenthood is common. This aspect of the commonality of the experience must again be an important part of interpreting what processes might be at work. The finding potentially enhances our understanding of the findings in the first part of the paper, where I suggested that the employment status or potential unemployment risk of the partner might shape the extent to which cohabitation occurred for this group. Specifically, those Caribbean men who cohabited with Caribbean women were an economically precarious group. Similarly here we can see that cohabitation is less likely to occur for those who are most likely to face high unemployment rates.

**[TABLE 5 about here]**

These findings amplify those from the first set of results in that they show that the outcomes for those children growing up with parents of different ethnic groups may differ from other families partly as an artifact of which parents are observed as cohabiting couples. Because for most groups, lone parenthood is more likely among mothers partnered with someone from a different ethnic group, those couples that are together more likely represent the best case situations.

## **Children's Emotional-Behavioral Outcomes**

Given these findings about risks associated with having parents from different ethnic groups, an obvious succeeding question is whether interethnic partnerships translate directly into poorer or better outcomes for children on direct measures. If the evidence so far gives limited support to a hypothesis of relationship strain for families with children where the parents are from different ethnic groups, then this might be expected to translate into children's own behavioral-emotional outcomes as develop. However, if those couples who remain together imply slightly more advantageous outcomes for children and if lone parenthood is itself a key mediating factor for children's early life outcomes, any possible negative impact may already be factored out through relationship patterns, and the reverse pattern may then apply.

To investigate these competing hypotheses, the analysis exploited the Strengths and Difficulties Questionnaire (SDQ) for children at the second sweep, when the children were around three years old. At this age the children are developing within the family context and able to display and be evaluated for problems in adjustment or behavior. At the same time, they are still preschool and thus not susceptible to the large range of influences and social judgments and expectations that occur after that transition. Models were therefore estimated to investigate whether there was an effect related to interethnic partnerships (again interacted with ethnic group) over and above known risk factors relating to the differences in SDQ score. Given the inclusion of lone parenthood and maternal depression as potential mediating factors and the strong association between lone parenthood and low income (and to a lesser extent with maternal depression, as well as ethnic group), income was not included in these models.

The SDQ is a suite of 25 questions that is designed to capture behavioral-emotional difficulties of children aged three to 17. It also measures pro-social behavior (Goodman

1997). It can be administered to parents or teachers or (from the age of around 11) to children themselves for self-evaluation; and has been extensively validated in community samples and across different cultural groups. In the Millennium Cohort Study, the SDQ was administered to parents and covered in the self-completion section of the questionnaire so that responses were not influenced by the presence of an interviewer. The survey asks five questions in each of five domains: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and pro-social behavior. Each question is scored 0 (not at all true), 1 (partly true) or 2 (certainly true), with some reverse scoring. Scores are summed across the domains, and a total-difficulties score can be created adding together the first four domains. The SDQ has been well validated for use in community samples (Goodman and Scott 1999) and is widely applied across different countries.

There are two ways of using the total-difficulties score in the SDQ. At the top end of the distribution, a level covering around 10 percent of children has been defined at which the child can be considered at the “abnormal” end of the spectrum on the particular domain or for total difficulties. Much analysis also examines differences across the whole distribution, transformed into z scores (e.g. Del Bono and Ermisch 2009), rather than depending on a binary division of children into “normal/borderline” and “abnormal.” For robustness, models were estimated using both of these approaches.<sup>5</sup> Thus, a probit model was estimated that regressed the binary variable for “abnormal” difficulties against key regressors, while a linear regression regressed z scores of difficulties on the same key characteristics to explore variation across the range of difficulties.

Because there is substantial and significant variation between boys and girls in their chances of experiencing difficulties, sex of child was controlled in the model. Whether parents were from different ethnic groups was included in the model and interacted with mother’s ethnic group. In addition, the key risk factors for negative outcomes that were

explored in the previous section (lone parenthood and maternal depression) were also modeled, along with maternal education as a summary measure of family background. For robustness, given the reduction in sample size across the two sweeps and some non-responses in the self-completion,<sup>6</sup> ethnic group was reduced to a smaller set of categories, combining Pakistani and Bangladeshi mothers into one group and excluding the smaller and “other” ethnic groups.

Table 6 shows the results from the probit regression of difficulties above the threshold and of the linear regression estimates of difficulties. The results were largely consistent across the two approaches. Having parents from different ethnic groups had no overall independent effect on children’s chances of scoring highly on the SDQ. Thus it is neither a specific risk factor nor protective for this outcome once other characteristics are controlled, as we might expect. As anticipated, risks of difficulties are strongly associated with partnership status (being a lone mother) and maternal depression at nine months, as well as with maternal education. In line with other research, children in Indian and Pakistani-Bangladeshi families face higher risks of difficulties at this age, though this association attenuates over time (Hansen et al. 2010), and children in African families experience lower levels of difficulties. There was some evidence from the continuous model that for Pakistani and Bangladeshi families the negative effect of ethnicity is not found in interethnic partnerships, i.e., that where the mother is partnered with someone from a different ethnic group, the outcomes are equivalent to those in white (or Caribbean) families. Because the number of such partnerships is small, and because the probit estimates do not confirm these results, these estimates should be treated with caution. Nevertheless, they do provide some indication that where interethnic partnerships are rare and for those groups that face high levels of disadvantage, interethnic unions afford a protective effect on children’s behavior. This protective effect may derive from unobserved characteristics of the partners in such unions that are not fully captured in

the analysis, and may pertain to different contexts of upbringing. Nevertheless it suggests a further potential positive association with interethnic partnerships, at least for those groups that face substantial overall disadvantage and warrants further investigation.

### **Discussion and Conclusions**

Interethnic unions are a relatively neglected topic in the United Kingdom. Yet they are potentially of great relevance to how we think about society and the future; and exploring them can lead to questioning models of interaction and assumed assimilative processes and the sorts of questions we ask.

This paper has shown that, overall, children living in families with mixed parentage may be more at risk of living in a workless family than those living with ethnically homogamous (couple) parents. However, when taking account of the ethnicity of the parents, this is shown to be the case only for certain groups. For those with white British or Caribbean mothers, having a father from a different ethnic group may increase their risks of growing up in a workless family, and the same is true of those with a White British father. For those with Indian or Pakistani mothers or Indian fathers, the presence of a parent from a different ethnic group appeared protective in relation to risks of worklessness. However, there were no differences associated with partnering out compared with co-ethnic partnerships for Pakistani and Caribbean men. These distinctions suggest that differences in outcomes are not purely a consequence of selection effects and that the disadvantage associated with minority status, particularly for earners (fathers) matters for children's exposure to worklessness. For Indian fathers, who we already know to have high employment rates, the differences between those in families with Indian wives, and those with majority (or other ethnic group) partners may reflect unobserved selectivity or labor market context of this group.

The result for black Caribbean mothers compared with other minority group mothers needs to be seen in the context that, for this group, interethnic partnerships are not uncommon, as they are for other minority groups. Moreover, in the context of high rates of lone parenthood, those observed co-ethnic cohabiting partnerships may represent particular sets of circumstances that are more conducive for positive outcomes. In both scenarios, the fact that only those family circumstances that are relatively stable were observed begs its own questions about the positive selectivity of the observed patterns, if more vulnerable situations (lone parenthood) that are not observed are also associated with greater risks for children growing up amidst worklessness.

The analysis, therefore, next considered the risks of living in a lone-parent household or of maternal depression to explore whether interethnic partnerships may, nevertheless, be associated with greater stress, given the social or cultural proscriptions potentially associated with such partnerships. Because both of these factors affect child outcomes, it was thus pertinent to establish whether they were affected by partnership status. The analysis found no evidence for increased maternal deprivation when the father and mother were of different ethnicities, but the chances of lone parenthood were greater than when the parents were of the same ethnicity. However, the story for black Caribbean mothers followed a rather more complex pattern that varied by level of education, and the differential access to resources (and opportunities for types of partnerships) that goes with that. While better educated black Caribbean mothers had higher rates of lone parenthood when the father was of a different ethnic group, lower educated black Caribbean mothers had higher chances of lone parenthood when the father was of the same ethnic group. This is consistent with the speculative interpretation of the first part of the analysis: that the circumstances of the potential partners may be highly related to who is observed in couples, especially where neither interethnic partnership nor lone parenthood is a rare event. This is consistent with arguments relating to

forms of segmented assimilation in the U.K. context (Peach 2005). Overall, it is important to note that the chances of lone parenthood themselves vary dramatically across groups and dwarf the differences associated with mixed-ethnicity parentage.

The third section of the analysis focused directly on children's outcomes at age three: their rates of difficulties revealed by the SDQ. Results indicate that children's outcomes are not systematically sensitive to whether parents are from the same or different ethnic groups. However, there are indications that for children growing up in what are typically the most disadvantaged families, the increased risk of experiencing behavioral-emotional difficulties are moderated when a majority-group parent is present.

There is clearly not a single process by which interethnic unions lead smoothly to assimilative outcomes for minorities. It is unlikely that either the matching or the regression approaches explored here take account of the full range of relevant factors that might help us understand the differences in the contexts that children are growing up in and how they differ according to patterns of parental partnership. The local context of families is particularly hard to capture, given the relatively small sizes of specific minority ethnic groups and the relative rarity of mixed-ethnicity partnerships for most groups, and it is not within the scope of the analysis to unpick the mechanisms further. Nevertheless, for some groups there may be an argument that economic and social "integration" do not go together; and that the economic context and ethnic labor-market stratification trumps a context in which social barriers are becoming increasingly porous.

Overall, the evidence that interethnic partnerships bring additional stresses and difficulties is not substantial; however, rates of lone parenthood are greater for mothers with a partner of a different ethnic group, in most cases. This suggests that it may be easier for families to remain together if the parents share ethnicity or where there are more proscriptions against alternative family forms. This may help to explain an additional

dimension of selectivity in interethnic partnerships: it is the most successful that are typically observed, since analysis can rarely take account of non-cohabiting relationships or non-resident parents.

Because lone parenthood is an important factor in children's subsequent outcomes and life chances, children may consequently be affected. Once that mediating factor is taken account of, there is little evidence that interethnic partnerships are a cause of further stress that manifests itself in children's social-behavioral outcomes. Conversely there is a slight suggestion that for groups that are most disadvantaged and most susceptible to worse social-behavioral outcomes when children are three years old, and where interethnic parenting is rare, such partnerships may be protective in terms of child outcomes.

Minority-group mothers who both make and maintain cohabiting interethnic partnerships may tend to be positive for children, but this is likely to be in part a consequence of those specific factors that characterize such parents since being able to sustain these relationships may tend to require more positive environments. Moreover, where interethnic partnerships are more common, there is less that is special about interethnic partnerships, and thus their positive aspects are not so evident. Finally, the findings for majority-group mothers parenting with minority-group partners indicate that this is not an equal process.

Commentators may be right to celebrate mixed relationships as an indication of social openness and a changing social world, but at the same time, the existence of such relationships does not imply that children growing up in such families will necessarily have the same life chances as the majority. Social openness on its own will not bring or reflect economic equality. A continued focus on redressing structural inequalities that face minority-group members will be necessary to bring dividends in terms of better future outcomes for children regardless of ethnic groups' patterns of partnership and rates of intermarriage.

## References

- Aspinall, Peter. 2010. Concepts, terminology and classifications for the 'mixed' ethnic or racial group in the United Kingdom. *Journal of Epidemiology and Community Health* 64 (6):557-560.
- Barn, Ravinder, Linda Andrew, and Nadia Mantovani. 2005. *Life after care: The experiences of young people from different ethnic groups*. York, United Kingdom: Joseph Rowntree Foundation.
- Battu, Harminder, and Yves Zenou. 2010. Oppositional identities and employment for ethnic minorities: Evidence from England. *The Economic Journal* 120 (542):F52-F71.
- Belot, Michele, and Jan Fidrmuc. 2010. Anthropometry of love. *Economics and Human Biology* 8 (3):361-372.
- Berthoud, Richard. 2005. Family formation in multicultural Britain: Diversity and change. In *Ethnicity, social mobility and public policy*, eds. Glenn C. Loury, Tariq Modood, and Steven M. Teles, 222-253. Cambridge, United Kingdom: Cambridge University Press.
- Bisin, Alberto, Eleonora Patacchini, Thierry Verdier, and Yves Zenou. 2008. Are Muslim immigrants different in terms of cultural integration? *Journal of the European Economic Association* 6 (2-3):445-456.
- Coleman, David. 1994. Trends in fertility and intermarriage among immigrant populations in Western Europe as measures of integration. *Journal of Biosocial Sciences* 26 (1):107-136.
- Dale, Angela, Joanne Lindley, and Shirley Dex. 2006. A life-course perspective on ethnic differences in women's economic activity in Britain. *European Sociological Review* 22 (4):459-476.
- Del Bono, Emilia, and John Ermisch. 2009. Birth weight and the dynamics of early cognitive and behavioural development. Institute for Social & Economic Research Working Paper 2009, Colchester, United Kingdom.
- Dex, Shirley, and Heather Joshi, eds. 2005. *Children of the 21<sup>st</sup> century: From birth to nine months*. Bristol, United Kingdom: The Policy Press.
- Duncan, Brian, and Stephen J. Trejo. 2005. Ethnic identification, intermarriage, and unmeasured progress by Mexican Americans. The National Bureau of Economic Research Working Paper 2007, Chicago, IL.
- Edwards, Rosalind, and Chamion Caballero. 2008. What's in a name? An exploration of the significance of personal naming of 'mixed' children for parents from different racial, ethnic and faith backgrounds. *The Sociological Review* 56 (1):39-60.
- Edwards, Rosalind, Suki Ali, Chamion Caballero, and Miri Song, eds. 2012. *International perspectives on racial and ethnic mixing and mixedness*. London: Routledge.

- Ermisch, John. 2008. Origins of social immobility and inequality: Parenting and early child development. *National Institute Economic Review* 205 (1):62-71.
- Ermisch, John, Marco Francesconi, and David Pevalin. 2004. Parental partnership and joblessness in childhood and their influence on young people's outcomes. *Journal of the Royal Statistical Society. Series A (Statistics in Society)* 167 (1):69-101.
- Fryer, Roland G. 2007. Guess who's been coming to dinner? Trends in interracial marriage over the 20th century. *Journal of Economic Perspectives* 21 (2):71-90.
- Furtado, Delia. 2006. Human capital and interethnic marriage decisions. Institute for the Study of Labor (IZA) Discussion Paper 1989. Bonn, Germany.
- Georgiadis, Andreas, and Alan Manning. 2011. Change and continuity among minority communities in Britain. *Journal of Population Economics* 24 (2):541-568.
- Goodman, Robert. 1997. The Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology and Psychiatry* 38 (5):581-86.
- Goodman, Robert, and Stephen Scott. 1999. Comparing the Strengths and Difficulties Questionnaire and the Child Behavior Checklist: Is small beautiful? *Journal of Abnormal Child Psychology* 27 (1):17-24.
- Gordon, Milton Myron. 1964. *Assimilation in American life*. Oxford, United Kingdom: Oxford University Press.
- Gregg, Paul, and Jonathan Wadsworth. 2001. Everything you ever wanted to know about measuring worklessness and polarization at the household level, but were afraid to ask. *Oxford Bulletin of Economics and Statistics* 63(5):777-806.
- Hansen, Kirstine, Elizabeth Jones, Heather Joshi, and David Budge. 2010. *Millennium Cohort Study Fourth Survey: A user's guide to initial findings*. London: CLS.
- Hwang, Sean-Shong, Rogelio Saenz, and Benigno E. Aguirre. 1997. Structural and assimilationist explanations of Asian American intermarriage. *Journal of Marriage and the Family* 59 (3):758-772.
- Kalmijn, Matthijs, and Frank van Tubergen. 2006. Ethnic intermarriage in the Netherlands: Confirmations and refutations of accepted insights. *European Journal of Population* 22 (4):371-397.
- Kantarevic, Jasmin. 2004. Interethnic marriages and economic assimilation of immigrants. Institute for the Study of Labor (IZA) Discussion Paper 1142. Bonn, Germany.
- Kiernan Kathleen E., and Fiona K. Mensah. 2009. Poverty, maternal depression, family status and children's cognitive and behavioural development in early childhood: A longitudinal study. *Journal of Social Policy* 38 (4):569-588.
- Leuven, Edwin, and Barbara Sianesi. 2003. PSMATCH2: Stata module to perform full Mahalanobis and propensity score matching, common support graphing, and covariate

- imbalance testing. In Paper Series at IDEAS [database online]. St. Louis, MO: Economic Research, Federal Reserve Bank of St. Louis. Available from: [www.research.stlouisfed.org](http://www.research.stlouisfed.org) (accessed 5 January 2012).
- Manning, Alan, and Sanchari Roy. 2010. Culture clash or culture club? National identity in Britain. *The Economic Journal* 120 (542):F72-F100.
- Meng, Xin, and Robert G. Gregory. 2005. Intermarriage and the economic assimilation of immigrants. *Journal of Labor Economics* 23 (1):135-175.
- Model, Suzanne, and Gene Fisher. 2002. Unions between blacks and whites: England and the US compared. *Ethnic and Racial Studies* 25 (5):728-754.
- Muttarak, Raya. 2007. Does interethnic union promote occupational mobility of ethnic minorities in Britain? University of Oxford Sociology Working Paper 2007, Oxford, United Kingdom.
- Muttarak, Raya, and Anthony Heath. 2010. Who intermarries in Britain? Explaining ethnic diversity in intermarriage patterns. *The British Journal of Sociology* 61 (2):275-305.
- Office for National Statistics. 2005. *Focus on ethnicity and identity*. London: National Statistics.
- Panico, Lidia, and James Nazroo. 2011. The social and economic circumstances of mixed ethnicity children in the UK: Findings from the Millennium Cohort Study. *Ethnic and Racial Studies* 34 (9):1421-1444.
- Peach, Ceri. 2005. Social integration and social mobility: Spatial segregation and intermarriage of the Caribbean population in Britain. In *Ethnicity, social mobility and public policy: Comparing the US and UK*, eds. Glenn C. Loury, Tariq Modood and Steven M. Teles, 178-203. Cambridge, United Kingdom: Cambridge University Press.
- Platt, Lucinda. 2009. *Ethnicity and family: Relationships within and between ethnic groups: An analysis using the Labour Force Survey*. London: Equality and Human Rights Commission.
- Platt, Lucinda. 2010. Ten year transitions in children's experience of living in a workless household: Variations by ethnic group. *Population Trends* 139:70-90.
- Platt, Lucinda. 2012. A descriptive account of those self-identifying as of mixed ethnicity in Great Britain. In *International perspectives on racial and ethnic mixing and mixedness*, eds. Rosalind Edwards, Suki Ali, Chamion Caballero and Miri Song. London: Routledge.
- Portes, Alejandro, and Min Zhou. 1993. The new second generation: Segmented assimilation and its variants. *Annals of the American Academy of Political and Social Sciences* 530:74-96.

- Rees, P., P. Wohland, P. Norman, and P. Boden. 2011. A local analysis of ethnic group population trends and projections for the UK. *Journal of Population Research* 28 (2/3):149-183.
- Reynolds, Tracey. 2005. *Caribbean mothers: Identity and experience in the UK*. London: The Tufnell Press.
- Schoon, Ingrid, Elizabeth Jones, Helen Cheng, and Barbara Maughan. 2011. Family hardship, family instability and children's cognitive development. *Journal of Epidemiology and Community Health* doi:10.1136/jech.2010.121228.
- Simpson, Ludi, and Bola Akinwale. 2007. Quantifying stability and change in ethnic group. *Journal of Official Statistics* 23 (2):185–208.
- Van Ours, Jan. C., and Justus Veenman. 2008. How interethnic marriages affect the educational attainment of children: Evidence from a natural experiment. Institute for the Study of Labor (IZA) Discussion Paper 3308. Bonn, Germany.
- Wildsmith, Elizabeth, Myron P. Gutmann, and Brian Gratton. 2003. Assimilation and intermarriage for U.S. immigrant groups, 1880–1990. *History of the Family* 8 (4):563-584.
- Wilson, William Julius. 1978. *The declining significance of race: Blacks and changing American Institutions*. Chicago, IL: University of Chicago Press.

### Notes

---

<sup>1</sup> Results available from the author on request

<sup>2</sup> Though, clearly, if there is only one potential worker rather than two, the risks of worklessness are still increased. Nevertheless, it is clear that there is no claim that living in a nonworking households is a specific cultural preference.

<sup>3</sup> Bootstrapping provided standard errors of estimated differences. Checks were carried out to ensure common support across analyses. This implies that the difference between the experience stemming from growing up with mixed- and single-ethnicity partnerships is the key point of variation between the samples, though clearly it cannot fully explain how those differences emerged nor account for unobservable differences between the groups. Full tables of analysis are available from the author on request.

---

<sup>4</sup> The specification was slightly different across the two models as the literature suggested that it might be important to separate out step-siblings in the maternal depression model, and in the subsequent child behaviour model, but this was not considered necessary for the lone parenthood model.

<sup>5</sup> Exploratory analysis was also carried out with the different domains, but distributions across the sample were too small to allow systematic analysis by ethnic group. There was, however, no indication that they told a different domain-specific story beyond the one that is covered here.

<sup>6</sup> Since there is a substantial level of item nonresponse across the self-completion, responses were used where there were at least three valid responses.

**TABLE 1**  
**The Distribution of Ethnic Groups in Great Britain, and Proportion U.K. born**

Ethnic Group	% of Overall Population	% of Group U.K.-Born
White British	84.1	97.6
Other White	5.2	42.4
White and Black Caribbean	0.4	95.5
White and Black African	0.2	70.9
White and Asian	0.3	85.2
Other mixed	0.2	69.8
Indian	2.2	42.5
Pakistani	1.7	56.5
Bangladeshi	0.7	50.4
Other Asian	0.8	24.4
Black Caribbean	1.1	61.4
Black African	1.4	33.9
Black Other	0.1	64.3
Chinese	0.4	25.2
Other	1.4	22.1
Total	100	89.1
N = 688,028		

Source: Quarterly Labour Force Survey, pooled quarters Q4 2003-Q3 2010, weighted.

**TABLE 2**  
**Partnership Patterns by Selected Ethnic Group and Sex: Row Percentages**

Group	Men				Women			
	No Partner	Same Ethnic Group Partner	Different Ethnic Group Partner	Unweighted N	No Partner	Same Ethnic Group Partner	Different Ethnic Group Partner	Unweighted N
White British	24	73	3	109,140	34	64	2	127,785
Other White	34	43	23	6,980	35	39	26	8,031
Mixed White with Caribbean	44	4	52	144	62	3	35	220
Mixed White with African	40	18	42	76	50	12	37	120
Mixed White with Asian	38	4	59	138	41	5	54	151
Other Mixed	40	13	48	160	47	9	43	229
Indian	21	69	10	2,263	23	69	8	2,374
Pakistani	20	74	6	1,446	23	72	5	1,573
Bangladeshi	15	80	5	451	25	72	3	520
Other Asian	31	49	20	769	26	45	29	907
Black Caribbean	44	29	27	987	65	23	12	1,310
Black African	46	43	12	1,040	54	38	8	1,302
Chinese	44	46	9	499	37	39	24	648
All groups	25	70	5	125,712	34	61	5	146,995

Source: LFS household data sets October-December 2004 to April-June 2008, weighted proportions

Note: These are population based estimates for all adults aged 16 and over

**TABLE 3**  
**Rates of Worklessness in Families with Children by Ethnic Group and Partnership Status, Raw Rates and Estimates from Propensity Score Matching**

A. Unadjusted Rates (95% confidence intervals)						
	Both Parents of Group	Father of Group Mother Not		Mother of Group Father Not		
White						
British	5.6 (5.4-5.8)	7.7 (6.5-9.0)		6.9 (5.9-8.1)		
Indian	8.1 (6.7-9.6)	1.8 (0.4-5.2)		4.7 (1.9-9.4)		
Pakistani	22.6 (20.6-24.7)	8.6 (4.0-15.6)		6.8 (2.3-5.3)		
Black						
Caribbean	10.0 (6.6-14.4)	16.7(12.4-21.7)		11.8 (7.3-17.6)		
B. Estimates from Propensity Score Matching						
	Women			Men		
	(1)Women with Same Group Partner	(2)Women with Different Group Partner	<i>Difference (2)-(1)</i>	(1)Men with Same Group Partner	(2) Men with Different Group Partner	<i>Difference (2)-(1)</i>
White						
British	5.4	6.7	1.3	4.1	7.2	<b>3.2</b>
Indian	7.6	4.8	-2.8	9.1	1.8	<b>-7.3</b>
Pakistani	14.3	7.1	-7.1	10.4	8.6	-1.9
Black						
Caribbean	3.3	10.5	<b>7.2</b>	16.6	16.9	<i>0.3</i>

Source: Household Labour Force Survey pooled data sets 2002-2005, weighted

Note: Differences that do not approach statistical significance at the 10% level are in italics and statistically significant differences at the 5% level or above are in bold.

**TABLE 4**  
**Probit Regressions of Lone Parenthood and Maternal Depression**  
**(standard errors)**

	(1) Lone parenthood	(2) Maternal depression
<b>Parental Ethnicity</b>		
Parents of different ethnicities	0.48** (0.15)	0.077 (0.17)
White	Ref	Ref
Indian	-1.02*** (0.23)	-0.48*** (0.12)
Pakistani	-0.99*** (0.11)	-0.45*** (0.09)
Bangladeshi	-1.21*** (0.12)	-0.75*** (0.18)
Other Asian	-0.78* (0.34)	-1.31*** (0.24)
Black Caribbean	1.26*** (0.16)	-0.50*** (0.12)
Black African	0.77*** (0.10)	-1.05*** (0.12)
Chinese	-0.37 (0.30)	-0.55 (0.39)
Other	-0.88*** (0.20)	-0.66** (0.22)
<b>Interactions</b>		
Indian * interethnic	0.36 (0.36)	0.50+ (0.30)
Pakistani * interethnic	0.01 (0.36)	-0.04 (0.29)
Bangladeshi * interethnic	0.22 (0.40)	0.56 (0.43)
Other Asian * interethnic	-0.02 (0.60)	1.40*** (0.34)
Caribbean * interethnic	-0.65** (0.23)	0.39 (0.25)
Black African * interethnic	-0.44 (0.30)	0.82* (0.32)
Chinese * interethnic	0.014 (0.46)	0.15 (0.65)
Other * interethnic	0.71+ (0.39)	0.10 (0.35)
<b>Parental Qualifications</b>		
No qualifications	Ref	Ref
Lower GCSEs	-0.20*** (0.06)	0.05 (0.05)
Good GCSEs	-0.29*** (0.05)	-0.03 (0.04)
‘A’ level and diploma	-0.40*** (0.06)	-0.04 (0.06)
Degree and above	-0.56*** (0.10)	-0.30*** (0.06)
Other qualifications	-0.30** (0.11)	-0.28** (0.11)

## Interactions

Lower GCSEs * interethnic	0.53*	-0.39
	(0.23)	(0.29)
Good GCSEs * interethnic	0.26	-0.05
	(0.19)	(0.18)
'A' level * interethnic	0.16	-0.16
	(0.24)	(0.20)
Degree and above * interethnic	0.31	-0.13
	(0.25)	(0.20)
Other qualifications * interethnic	-0.69	0.21
	(0.44)	(0.35)
<b>Controls</b>		
Income (logged)	-1.02***	-0.21***
	(0.04)	(0.02)
Mother's age at interview	-0.04***	0.00
	(0.00)	(0.00)
Lone parent		0.06
		(0.04)
Number of Siblings	-0.09**	
	(0.03)	
<b>Sibship</b>		
No siblings		Ref
Natural siblings		0.11***
		(0.03)
Step- and half-siblings only		0.36***
		(0.05)
Natural siblings * interethnic		-0.17
		(0.15)
Step- and half-siblings * interethnic		-0.15
		(0.25)
Constant	5.68***	0.43**
	(0.21)	(0.14)
Observations	15,098	15,098

Source: Millennium Cohort Study sweep 1. Design weights applied.

+  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

**TABLE 5**  
**Predicted Probabilities of Lone Parenthood for Mothers by Ethnicity of Partner and Qualifications,**  
**Selected Examples (in percentages)**

	Actual	In Estimation Sample	No Qualifications		Higher Qualifications	
			Same Ethnicity Partner	Different Ethnicity Partner	Same Ethnicity Partner	Different Ethnicity Partner
White	14	16	14	28	5	20
Indian	4	5	2	10	0.3	7
Black Caribbean	48	44	57	50	35	40

Note: Other characteristics were set to: sample means of maternal age and log income and to no siblings.

**TABLE 6**  
**Probit and Linear Regressions Exploring Children's Experience of Social-Emotional Difficulties at Age 3 Controlling for Family Circumstances at Age 9 Months**  
**(standard errors)**

	Probit: Total Difficulties above Threshold Coefficient	SE	OLS Increase in Difficulties Coefficient	SE
<b>Parental Ethnicity</b>				
Interethnic partnership	-0.040	(0.13)	-0.02	(0.06)
White	Ref		Ref	
Indian	0.45**	(0.14)	0.24**	(0.09)
Pakistani / Bangladeshi	0.55***	(0.09)	0.55***	(0.06)
Black Caribbean	-0.03	(0.16)	0.07	(0.07)
Black African	-0.61**	(0.18)	-0.17*	(0.09)
<b>Interactions</b>				
Interethnic * Indian	-0.28	(0.43)	-0.30	(0.22)
Interethnic * Pakistani/Bangladeshi	-0.17	(0.33)	-0.57*	(0.24)
Interethnic * Caribbean	0.31	(0.32)	-0.13	(0.16)
Interethnic * Black African	0.35	(0.53)	0.04	(0.21)
<b>Controls</b>				
Lone parent	0.33***	(0.05)	0.28***	(0.03)
Maternal depression	0.28***	(0.042)	0.25***	(0.02)
Boy	Ref		Ref	
Girl	-0.25***	(0.04)	-0.18***	(0.02)
<b>Sibship</b>				
No siblings	Ref		Ref	
Natural siblings	-0.05	(0.04)	-0.09***	(0.002)
Step- and half-siblings	0.08	(0.07)	-0.02	(0.04)
<b>Parental Qualifications</b>				
No qualifications	Ref		Ref	
Lower GCSEs	-0.23***	(0.07)	-0.21***	(0.04)
Good GCSEs	-0.57***	(0.05)	-0.43***	(0.04)
Advanced level and diploma	-0.85***	(0.07)	-0.65***	(0.04)
Degree and higher	-1.07***	(0.08)	-0.81***	(0.04)
Other qualifications	-0.43***	(0.13)	-0.39***	(0.07)
Constant	-0.90***	(0.06)	0.44***	(0.04)
Observations = 12282				

Source: Millennium Cohort Study sweeps 1 and 3. Design weights applied.

+  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$