

# Predictors of ethnic identity change for mixed<sup>1</sup> people in the United Kingdom: Analysis of the ONS Longitudinal Study

Tze Ming Mok  
Social Policy Department  
London School of Economics & Political Science  
t.m.mok@lse.ac.uk

***Abstract:** There is very little large-scale quantitative research into reasons for the widespread phenomenon of mixed/multiracial people changing their ethnic identification over time, and none in the UK context. What little there is often does not control for a full range of structural predictors, nor for change in socioeconomic or household circumstances. This study uses a longitudinally linked sample of the Census for England and Wales to detect predictors of ethnic change and of different types of change – such as up or down a racial hierarchy or in and out of a mixed identity. It finds that privilege at baseline is associated with more ethnic/racial stability not with aspirational change. However, for ‘changers’ only, higher education at baseline predicts ‘whitening’ while better class status predicts changes towards mixed identities.*

Keywords: ‘ethnic measurement’ ‘racial measurement’ multiracial biracial ‘mixed race’ ‘racial fluidity’ ‘ethnic change’ ‘ethnic attrition’ ‘racial mobility’

*Paper prepared for the British Society of Population Studies Annual Meeting, Liverpool, 6-8 September, 2017. An earlier version was presented at the Population Association of America Annual Meeting, Chicago, 27-29 April 2017.*

## Acknowledgements

*This research is funded by the UK Economic and Social Research Council (ESRC). It contains statistical data from the UK government’s Office for National Statistics (ONS), which is Crown Copyright. The use of ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets that may not exactly reproduce National Statistics aggregates. The permission of the Office for National Statistics to use the Longitudinal Study is gratefully acknowledged, as is the help provided by staff of the Centre for Longitudinal Study Information & User Support (CeLSIUS). CeLSIUS is supported by the ESRC Census of Population Programme (Award Ref: ES/K000365/1). The author alone is responsible for the interpretation of the data.*

---

<sup>1</sup> Following Aspinall & Song, this paper uses the term ‘mixed’ or ‘mixed people’ for consistency and convenience, as people with multiple ethnic or racial ancestry groups are referred to differently in differently countries (Aspinall & Song, 2013b). The different deployments of the terms and concepts of ‘race’ and ‘ethnicity’ are also too widely varied to discuss in great detail in this paper, which will largely treat their social construction and measurement as functionally the same process in the UK, per DaCosta (DaCosta, 2007).

## Introduction

The fluidity of ethnic identity among those with multiple ethnic or racial heritage has long been noted, with such changes being framed in contrasting ways. For the US multiracial movement, the act of choosing between several ethnic options has been framed as an aspirational act of agency (Root, 1994). Change in ethnic choices over time has also been framed more pejoratively as fluctuation or ‘instability’, implying an unsettled or insecure identity for individuals rather than only technical instability in the composition of the ethnic group (Carter, Hayward, Blakely, & Shaw, 2009; Simpson, Jivraj, & Warren, 2014). How free are these choices, and are they independent from family circumstance, social hierarchy and racialization? Recent and historical research using longitudinal and multidimensional ethnicity data has reframed race in the Americas as fluid and endogenous, finding that choices and change are often tied to racialized and gendered social stratification rooted in anti-Blackness (Carvalho, Wood, & Andrade, 2004; Mitchell-Walthour & Darity, 2015; Saperstein & Penner, 2012; Saperstein, Porter, & Noon, forthcoming). However, the UK has had little history of examining and researching these issues quantitatively, and functions within different discourses and histories of race and ethnicity<sup>2</sup> – it is unclear how generalizable (North or Latin) American findings are to the British context.

In this paper I exploit repeated measures of ethnic group in large-scale, nationally representative longitudinal data for England and Wales in the Office for National Statistics’ Longitudinal Study (ONS LS). The ONS LS contains linked Census and life events data for a 1% sample of the population of England and Wales. Using this data, I identify the predictors of change in ethnic group identification among those self-categorising themselves as mixed at one or more time points, including baseline cross-sectional socioeconomic circumstances, and change in those circumstances. This allows us to explore the extent to which change is ‘free’ and independent of structural and contextual social factors, or alternatively is associated with personal instability, or with changes in social status according to theories of racialized social hierarchies.

---

<sup>2</sup> UK lacks a comparable history of slave labour on the mainland; never had a ‘one-drop’ rule, anti-miscegenation laws or other laws requiring racial segregation; and substantial non-white immigration began only after World War II.

## Literature

There is a broad body of theory and research on the evolution, formation and change of ethnic group identities as a whole, with much attention paid to debates about assimilation vs. acculturation of minorities in majority-White Western states (Berry, 1995, 1997; Kim, Laroche, & Tomiuk, 2004; Laroche, Kim, Hui, & Joy, 1996; Phinney, 1990; Phinney & Alipuria, 1996; Syed, Azmitia, & Phinney, 2007). There is also a body of literature outlining how social definitions of ethnic groups and ‘races’ changes, for example how different groups have entered or exited the privileged category of Whiteness as a whole over time, particularly in the US (Alba, 2016; Bonilla-Silva, 2002, 2004; Brodtkin, 1998; Ignatiev, 2009; Roediger, 2006).

Quantitative analysis of reasons for reported ethnic group change for *individuals* as a part of these theoretical frameworks has been limited, and none has looked at the UK context. A small body of literature dominated by Brazilian and US researchers with some contributions from New Zealand and elsewhere, examines predictors of individual ethnic identification choice and change in surveys and Censuses, and what implications this has for society and social hierarchies (Alba, 2016; Bailey, 2006; Bastos et al., 2009; Burma, 1946; Carter et al., 2009; Carvalho et al., 2004; Davenport, 2016; Francis & Tannuri-Pianto, 2013; Harris & Sim, 2002; Hitlin, Brown, & Elder, 2006; Kukutai, 2007, 2008; Kukutai & Didham, 2009; Mihoko Doyle & Kao, 2007; Mitchell-Walthour & Darity, 2015; Nix & Qian, 2015; Penner & Saperstein, 2013; Saperstein & Penner, 2012, 2016; Saperstein et al., forthcoming). This research uses either time series or longitudinally linked Census data, cross-sectional analysis of surveys with multidimensional ethnicity questions, or longitudinal surveys. It proceeds on the assumption that there are socially meaningful reasons for ethnic identification change. The limited descriptive research into ethnic change so far in the UK tends towards attributing a substantial portion of that change to various forms of measurement error (Simpson, 2014).

If we assume that a large part of reported ethnic change is substantive rather than non-meaningful measurement error, several different modes of individual change discussed in the general literature about ethnic identity may apply here.

1. *Identity change* for individuals over time that is gradual, less subject to contextual fluctuation, and deeply felt, leading towards “achieved identity” in social psychological terms (Phinney, 1990); or “how you see yourself” according to a recent Pew survey of ‘multiracial’ Americans (Parker, Morin, Menasce Horowitz, & Lopez, 2015). This is related to the broader literature on identity formation, acculturation and assimilation.

2. *Identification change* in terms specifically confined to ethnic reporting or identification to others, which may be strategic, motivated by specific instrumentalist perceptions of the ethnic enumeration process, or responses to ascriptive experiences, but which may or may not reflect a clear change in how a person feels about themselves or ‘sees themselves’. Sociological and social psychological theories of strategic ethnicity, and strategic management of identities, are relevant here (Barth, 1969; Ellemers, 1993; Goffman, 2009; Roberts, Settles, & Jellison, 2008), as is the literature specifically on ‘passing’ and strategic or aspirational self-labelling in the US and Brazilian contexts.

3. *Contextual change*, whereby changes in ethnic identification reflect a constantly shifting and multifaceted performance of identity, and there is not a clearcut demarcation or assumption of difference between substantive identity change and identification change, in a challenge to essentialist notions of authentic identity. We may refer again here to the literature on strategic identity and identity management, or to discussions of mixed and hybrid identity as positional, iterative and performative in the phenomenological and cultural studies literature (Ahmed, 1999; Haraway, 1991; Mahtani, 2002; Nishime, 2005; Pravaz, 2003). We should also recognise that low reliability of ethnic questions stemming from what survey methodologists would call cognitive problems, can also be viewed through the lens of contextual ethnicity. These might be issues of positionality, timing, terminological or cultural familiarity, immediate environment, priorities, and varying levels of form-filling fatigue.

These modes of change may make ethnic indicators themselves seem ‘unreliable’ from a survey methodological perspective; but these inconsistencies should not be seen as errors, as they accurately reflect the identification or identity of the respondent at that point in time and in that context.

Compared with research from the Americas, the UK has fewer relevant data sources and no notable history of quantitative research into ethnic identification change. In fact, ethnic data gathering itself is surprisingly new in the UK. A direct ethnic question was only introduced to the Census for England and Wales in 1991. Moreover, unlike the US, New Zealand, Australia and Canada, which began providing the option for mixed people to tick two or more boxes for ethnicity or ‘race’ several decades ago (Morning, 2014; NIDEA, 2013), ethnic questions in the UK provide only a single-coded option – that is, respondents can tick one box only.

Four specific ethnic tick-boxes for mixed people were introduced to the Census in 2001: Mixed White/Black Caribbean, Mixed White/Black African, Mixed White/Asian, and Mixed Other

(see Figure 1). Related analysis suggests that more than half of those with mixed parentage in the UK choose other categories altogether, such as White British, non-mixed minority groups, or ‘Other Ethnic Group’ (Mok, forthcoming working paper). British researchers have advocated for more widespread use of multidimensional ethnicity measures and for further exploration of ‘multi-ticking’ to cope with measurement problems and increasing numbers of people with more than two ethnic ancestry groups (Aspinall & Song, 2013b; Burton, Nandi, & Platt, 2010).

The more complex and longstanding ethnic measures in the White-settler societies of the former British empire compared to within the British Isles themselves, not to mention the explicit colour-continuum commonly used in Brazil, reflect the long deployment of ethnic enumeration as a colonial tool of control over subjugated, enslaved or otherwise non-White groups. However, they also imply a greater awareness of ethnicity and race as potentially unstable and contextual, due to longstanding socially salient mixed populations. For example, New Zealand has counted its mixed population since Census records began in 1851, differentiating in this period between ‘half-castes living as European’ and ‘half-castes living as Maori’ (Statistics New Zealand, 2013). In terms of interest in ethnic change, numerous studies as early as the post-Civil War Reconstruction era in the US attempted to use time series Census data to quantify the number of ‘legally Black’ people strategically passing as White in defiance of racial laws (Burma, 1946; Eckard, 1947), and there have been recent attempts at retrospective longitudinal intercensal linkage for these purposes (Nix & Qian, 2015).

The contemporary Brazilian literature has used similar time-series techniques, exploring whether the country’s range of racial shades in the Census and other data acts as a social ladder that the individual may ascend or descend (Carvalho et al., 2004), although most of the Brazilian research in this area appears to be cross-sectional due to data limitations (Bastos et al., 2009; Dineen-Wimberly & Spickard, 2010; Francis & Tannuri-Pianto, 2013; Miranda-Ribeiro & Junqueira Caetano, 2005; Mitchell-Walthour & Darity, 2015).

Figure 1: All incidences of the direct ethnic group question ever asked by the Census for England & Wales - (left to right) 1991, 2001 and 2011

**11 Ethnic group**  
Please tick the appropriate box.

White  0  
Black-Caribbean  1  
Black-African  2  
Black-Other   
*please describe*

Indian  3  
Pakistani  4  
Bangladeshi  5  
Chinese  6  
Any other ethnic group   
*please describe*

If the person is descended from more than one ethnic or racial group, please tick the group to which the person considers he/she belongs, or tick the 'Any other ethnic group' box and describe the person's ancestry in the space provided.

**8 What is your ethnic group?**  
\* Choose ONE section from A to E, then tick the appropriate box to indicate your cultural background.

**A White**  
 British  Irish  
 Any other White background, *please write in*

**B Mixed**  
 White and Black Caribbean  
 White and Black African  
 White and Asian  
 Any other Mixed background, *please write in*

**C Asian or Asian British**  
 Indian  Pakistani  
 Bangladeshi  
 Any other Asian background, *please write in*

**D Black or Black British**  
 Caribbean  African  
 Any other Black background, *please write in*

**E Chinese or other ethnic group**  
 Chinese  
 Any other, *please write in*

**16 What is your ethnic group?**  
Choose one section from A to E, then tick one box to best describe your ethnic group or background

**A White**  
 English/Welsh/Scottish/Northern Irish/British  
 Irish  
 Gypsy or Irish Traveller  
 Any other White background, write in

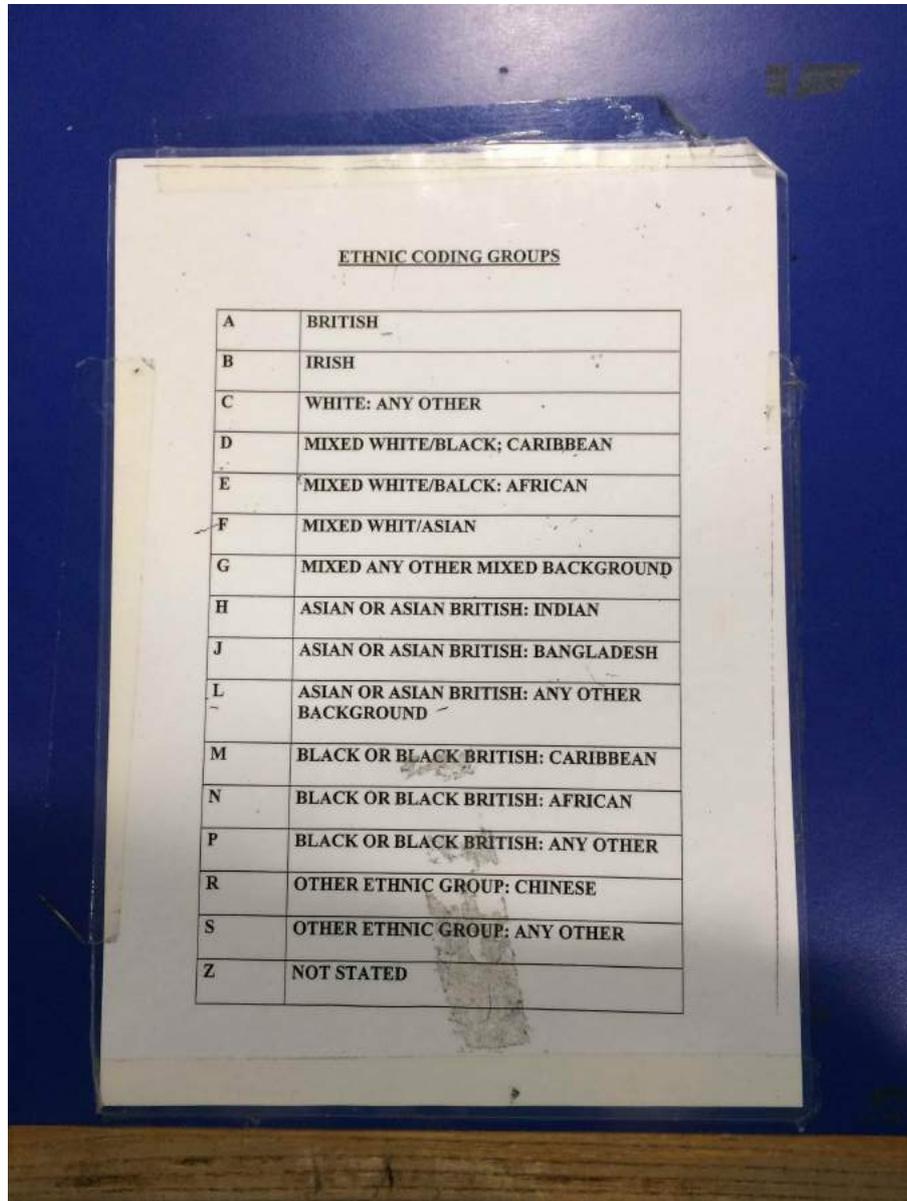
**B Mixed/multiple ethnic groups**  
 White and Black Caribbean  
 White and Black African  
 White and Asian  
 Any other Mixed/multiple ethnic background, write in

**C Asian/Asian British**  
 Indian  
 Pakistani  
 Bangladeshi  
 Chinese  
 Any other Asian background, write in

**D Black/African/Caribbean/Black British**  
 African  
 Caribbean  
 Any other Black/African/Caribbean background, write in

**E Other ethnic group**  
 Arab  
 Any other ethnic group, write in

Figure 2: Typical example of ethnic group code-sheet for the collection of administrative data in the UK health system



<u>ETHNIC CODING GROUPS</u>	
A	BRITISH
B	IRISH
C	WHITE: ANY OTHER
D	MIXED WHITE/BLACK; CARIBBEAN
E	MIXED WHITE/BALCK: AFRICAN
F	MIXED WHIT/ASIAN
G	MIXED ANY OTHER MIXED BACKGROUND
H	ASIAN OR ASIAN BRITISH: INDIAN
J	ASIAN OR ASIAN BRITISH: BANGLADESH
L	ASIAN OR ASIAN BRITISH: ANY OTHER BACKGROUND
M	BLACK OR BLACK BRITISH: CARIBBEAN
N	BLACK OR BLACK BRITISH: AFRICAN
P	BLACK OR BLACK BRITISH: ANY OTHER
R	OTHER ETHNIC GROUP: CHINESE
S	OTHER ETHNIC GROUP: ANY OTHER
Z	NOT STATED

*Taped to the reception desk of a South London NHS outpatient clinic to assist patients filling in forms. Photo taken with permission in 2017, although list appears based on the 2001 Census standard, with 'Pakistani' omitted – possibly in error.*

The present paper focuses on longitudinal ethnic change, while another related paper examines cross-sectional ethnic ‘choice’ (Mok, forthcoming working paper). As such, I pay particular attention here to the implications of longitudinal studies.

A small but slowly increasing number of English-language studies on ethnic change have been able to include analysis of repeated measures of ethnicity, rather than cross-sectional analysis of multi-dimensional ethnicity questions. These generally look at the selection of one ethnic option at one wave of a survey or the Census, and the selection of a different ethnic option at a following wave (Carter et al., 2009; Hitlin et al., 2006; Liebler, Rastogi, Fernandez, Noon, & Ennis, 2014; Mihoko Doyle & Kao, 2007; Porter, Liebler, & Noon, forthcoming; Saperstein & Penner, 2012; Saperstein et al., forthcoming; Simpson et al., 2014).

A US study and a UK study have both used longitudinally linked data from the national census; both were largely descriptive and focused on instability of individual ethnic groups rather than analysis of predictors of ethnic change for individuals (Liebler et al., 2014; Simpson, 2014). Several US longitudinal studies focus on a youth sample only, using waves of the National Longitudinal Study of Adolescent Health (Add Health) (Hitlin et al., 2006; Mihoko Doyle & Kao, 2007), although one uses two decades of data from the National Longitudinal Study of Youth (NLSY) (Saperstein & Penner, 2012). Two forthcoming US studies plan to use a large linked longitudinal adult sample of the American Community Survey (Saperstein et al., forthcoming), and further in-depth analysis of linked Census data (Porter et al., forthcoming). There is also a New Zealand adult longitudinal study that uses the Study of Family and Income & Employment (SoFIE) (Carter et al., 2009).

### Why do people change their reported ethnic group?

The existing studies have come up with three broad findings about why people change their reported ethnic group at different times. These findings mesh well with the theories of ethnic change outlined above.

#### *Identity change: Ethnic change as personal instability*

The social psychological theories discussed above (Phinney, 1990; Phinney & Alipuria, 1996) advance the concept of ethnic instability in reasonably positive terms, in the context of the journey of adolescents through various transitions and unstable liminal states towards ‘achieved

identity', i.e. stable ethnic identity. The focus on younger age groups the two US longitudinal studies of ethnic choices (Hitlin et al., 2006; Mihoko Doyle & Kao, 2007) as well as in qualitative research (Aspinall & Song, 2013b), is driven by this dominant assumption that ethnic fluctuation is a phenomenon that occurs in youth, and that for the vast majority is settled by early adulthood.<sup>3</sup>

However, the few relevant large-scale quantitative studies also found that some specifically negative kinds of instability or unsettledness are associated with ethnic change. The two Add Health studies variously found that ethnic change for adolescents was significantly associated with low self-esteem and higher 'psychomotor vigilance' (response alertness to external stimuli, suggesting greater susceptibility to external conditions), and lower maternal education (Hitlin et al., 2006; Mihoko Doyle & Kao, 2007). A more comprehensive New Zealand analysis of predictors of change exploited a survey that covered a full adult age range, and had three repeated measures of ethnic group (Carter et al., 2009)<sup>4</sup>. This study found that ethnic change was significantly associated with being younger, but also independently with a range of other factors, including multiple ethnicity at Wave 1, and indicators of deprivation including poorer self-rated health and lower income (Carter et al., 2009).

Other relevant published studies have controlled for cross-sectional indicators rather than change in material or health conditions over time, have not treated 'change' itself as the dependent variable, or have not focused on self-identified ethnic group. As such, we do not actually have clear evidence that 'instability' in life or changes in socioeconomic status are associated with instability of ethnic identity – just that some absolutely worse conditions are.

### *Strategic change: 'Ladder' vs 'Mixed privilege'*

Some relevant studies depict movement between categories as conscious strategic attempts of individuals to change status within a racialised social hierarchy, sometimes framed as strategic and sometimes as 'authentic' identity change. This engages more directly with sociological theories of social stratification and hierarchy, such as historical analysis of 'passing' and contemporary 'whitening' (Alba, 2016; Carvalho et al., 2004; Francis & Tannuri-Pianto, 2013;

---

<sup>3</sup> It is also convenient that the key data source for these US studies is the National Longitudinal Study of Adolescent Health (Add Health), a survey that has rich multidimensional ethnicity measures. The overlap of theory and data availability appears to have artificially limited the age focus of US studies in this area.

<sup>4</sup> New Zealand ethnic questions follow a multi-ticking standard, and multiple ethnicity is defined as those who have ticked more than one box.

Mitchell-Walthour & Darity, 2015; Nix & Qian, 2015; Saperstein & Penner, 2012; Schwartzman, 2007). A number of studies have looked at multigenerational upward mobility, and its associations with ethnic attrition and ‘whitening’ based on cross-sectional data (Emeka & Vallejo, 2011; Parker et al., 2015; Schwartzman, 2007), or time-series Census data that shows otherwise unexplained ethnic attrition (Alba, 2016; Alba & Islam, 2009; Carvalho et al., 2004). Two recent US studies use longitudinal ethnic data to examine the direction of individual ethnic change over the life course, and whether it precedes or follows some kind of material advantage. They both found evidence of ‘whitening’ with success and ‘darkening’ with poorer outcomes, although one was mostly based on interviewer-classification of colour due to data availability (Saperstein & Penner, 2012); and the other focuses on the exceptionalism of ‘White to Black’ and ‘Black to White’ change (Saperstein et al., forthcoming).

Meanwhile, some studies support the ‘mixed privilege’ hypothesis, including longitudinal, cross-sectional and qualitative research. There is some evidence that, for some groups, choosing the mixed option rather than either the white or non-mixed minority option for people with one White and one non-White parent, is associated with a context of privilege that encourages people to seek out ‘unique’ identities, compared with less privileged mixed people who will be more likely to seek security by sticking with the non-mixed herd (DaCosta, 2007; Davenport, 2016; Fhagen-Smith, 2010; Mok, forthcoming working paper; Stephens, Markus, & Townsend, 2007; Townsend, Fryberg, Wilkins, & Markus, 2012). This phenomenon also appears to be situated within broader progressive trends in the US and UK towards mixed race and ethnic identity – where higher education or pre-existing middle class status and values provide some protection from the punitive social outcomes associated with being non-white. In terms of the longitudinal research, the Hitlin et al. Add Health study of US adolescents found that those who changed into multiracial identities had higher maternal education than the ‘stable monoracial’ baseline; while those who switched out of multiracial identity had lower maternal education (Hitlin et al., 2006).

#### *Contextual change: Period and cohort effects, and other factors*

Two longitudinal studies have shown that greater ethnic stability is associated with older age in the US and New Zealand, including one study using the full US Census population (Carter et al., 2009; Liebler et al., 2014). But we cannot necessarily assume these findings will be replicated in the UK given non-comparability of questions, and very different historical approaches to race, ethnicity and mixed identities. Further, the idea that ethnic stability increases over time in a

journey towards ‘achieved identity’, as expressed in an age effect, may be countered by a cohort effect of a more settled social acceptability or even celebration of mixed identities for younger people in specific groups (Aspinall & Song, 2013a; Ford, Jolley, Katwala, & Mehta, 2012). This could potentially predict more ethnic stability for younger mixed people than for older ones, due to greater likelihood of ‘starting out mixed’ as rather than being introduced in later life to the possible acceptability of being mixed.

A range of other personal, family and nationally contextual factors are likely to predict ethnic change, including cognitive issues with the census questionnaire that may be conventionally considered measurement error. Ethnic group is likely to be one of the strongest predictors of change, as US studies have suggested (Hitlin et al., 2006; Mihoko Doyle & Kao, 2007), although national-level discourses of race, ethnicity and mixed identification are likely to have specific effects in the UK that cannot be predicted by international research. According to descriptive research and public discourse in the UK, British people with white and Black parentage have the highest level of acceptance of their officially designated ‘Mixed’ tick-box category, and commonly use the term ‘mixed race’ to describe themselves (Aspinall, Song, & Hashem, 2008); which contrasts very specifically with the US construction of Black identity under the historical conditions of the ‘one drop rule’. Meanwhile, the term ‘Asian’ does not have a settled definition in the UK, with inconsistency between the 2011 Census and other waves, as well as differences in administrative data collection (See Figure 1 & Figure 2). A conflation in the subcategories between national identities and ethnicity (‘Indian’, ‘Pakistani’, ‘Bangladeshi’) may also pose particular conundrums for mixed people who are immigrants.

Social psychological theories about relational identities and the impact of forming and dissolving intimate partnership mean that we might also expect some trends related to relationship breakup, and ethnicity of spouses and partners (Aron, Paris, & Aron, 1995; Lewandowski, Aron, Bassis, & Kunak, 2006).

In conclusion, we have a range of theories about ‘why’ mixed people change their reported ethnic group, but only a small amount of empirical analysis using longitudinal data, and certainly none in the UK context. There are currently no published studies that have used longitudinal data to specifically model the probability of the full range of ethnic identification change for adults, and its relationship with changes in socioeconomic status or deprivation for individuals. There has also been no explicit comparative testing of either the ‘whitening’ or ‘mixed privilege’ hypothesis of ethnic change using an adult age sample, i.e. the ‘direction’ or types of change that

are predicted by less secure baseline conditions and life events. The availability of two waves of ethnic and socioeconomic data in the ONS LS allows us to probe these questions further.

## Research question: Why do mixed people change their reported ethnic group in the UK?

This paper explores a range of alternative hypotheses regarding the likelihood and direction of ethnic identity change, examining the significance of both cross-sectional socioeconomic conditions, and of change in those conditions over time.

### Hypotheses:

- 1) *Ethnic identity formation is a linear journey of stabilisation over time, rather than contextual/contingent*
  - a) Identity stabilises with age, and thus ethnic change for mixed people will be associated with younger age (rather than being subject to cohort trends towards more stable acceptance of mixed identity for younger people).
  
- 2) *Instability of ethnic identity is associated with insecurity of material and personal conditions*
  - a) Worse socioeconomic conditions are associated with change, and better conditions with stability
  - b) Worsening conditions, or other changes that signal general instability in a respondent's household, are also associated with change. These might be things such as relationship breakup, changing ethnicity of partners, or being raised in a sole parent household.
  
- 3) *'Whitening' or 'racial ladder' hypothesis of identity/identification change*
  - a) Worse socioeconomic conditions will be associated with a move 'down the ladder' or away from whiteness, and better conditions with moving 'up'.
  - b) Worsening conditions will also be associated with moving 'down' while improving socioeconomic conditions will be associated with moving 'up'.
  
- 4) *'Mixed privilege' hypothesis of identity/identification change*
  - a) Better conditions predict moves into mixed from either white or non-white minority groups, and worse conditions predict moves out of mixed.

- b) Improving conditions predict moves into mixed and worsening conditions predict moves out of mixed.

## Methodology

Using the two available waves of Census ethnic data for England and Wales, I predict the odds of ethnic change for mixed people using binary logistic regression modelling, controlling for socioeconomic and other demographic variables that can test the various theories of ethnic change.

I first provide some descriptive statistics about groups reporting ethnic change in and out of the mixed categories, categorised according to the theories of change, based on the presence (or absence) and ‘direction’ of ethnic change. The most basic group division is expressed by a binary variable of ‘Changers’ vs ‘stable mixed’, indicating those who exhibit any ethnic change in or out of mixed categories, versus those who remain consistently mixed in the two waves. Two further binary categories are restricted to mixed ‘changers’ are created in order to test theories about there being any significance in the type or ‘direction’ of changes, i.e. up or down the ‘ladder’ towards whiteness, or in and out of a mixed category.

I estimate binary logistic regression models and report probabilities of changing ethnic group, and of different kinds of change, when controlling for individual characteristics, family characteristics, household socioeconomic status, area effects, and change of status at individual, household and ward level. The analysis of change in socioeconomic circumstances is indicated through categorical dummy variables that have ‘no change’ at baseline and two categorical options for ‘improved’ and ‘worsened’.

As waves are 10 years apart, using 1991-2001 socioeconomic change indicators to predict 2011 choices for clearer longitudinal sequencing would have meant substantially reducing the sample. This is why I have estimated change on change from 2001 to 2011, which means I do not make claims about causal ordering.

## Data

The ONS Longitudinal Study consists of anonymised individual census and life events records for 1% of the population of England and Wales<sup>5</sup>, linked across decennial Censuses. The Census

---

<sup>5</sup> The two other constituent nations of the United Kingdom - Scotland and Northern Ireland - run their census collection autonomously.

for England and Wales gathers a wide range of demographic and socioeconomic data, including ethnic group of all household members, sex, age, education, occupation, employment status, country of birth, health and disability, and various indicators of household deprivation. It introduced a direct ethnic question in 1991 but only introduced the four ‘mixed’ tick-box categories in 2001; as such only the 2001 and 2011 waves of data are used in this analysis.

Sampling of the Census for the ONS LS was started at the time of the 1971 Census and includes everyone born on any one of four dates of any year. Data from the study are available to academic researchers subject to strict controls to preserve confidentiality.

### Dependent variables

The change being analysed here is identification change, specifically self-reported ethnic group change in the Census.<sup>6</sup> This is not considered to be the same as ‘identity change’, as previously discussed. For brevity, the term ‘ethnic change’ will be used from this point. For the first model, the dependent variable is a binary variable derived from whether or not there has been ethnic change 2001-2011.

The main analytic sample is restricted to people who at one point stated that they had mixed/multiple ethnicity. The categories themselves mash together racial, ethnic, national and geographical concepts, but the official designation of the data is “ethnic group”. Two further analyses treat the ‘direction’ of change as independent variables, restricting samples to ‘changers only’. For Sample 2 the dependent variable is a derived binary variable differentiating between changing ‘towards white’ (1) or ‘away from white’ (0). Sample 3 similarly treats a derived binary variable indicating change ‘out of’ (1) a mixed category as opposed to ‘into’ (0) a mixed category as the dependent variable.

### Independent variables

A number of independent variables test what kind of embodied, familial, household and socioeconomic conditions are associated with ethnic change, as outlined in Table 1 below. These include, for example, age, specific ethnic groups, growing up in a sole parent household, education, occupational status, and household deprivation. They have been defined according to the theoretical models that drive the analysis.

---

<sup>6</sup> There is no contemporary practice within UK Census or large-scale survey collection of interviewer classification of ethnic group, phenotype or skin colour.

I distinguish between variables indicating cross-sectional conditions, and those indicating a change in conditions 2001-2011. The latter are derived as three-category variables, indicating whether there has been improvement, decline or no change in the number of household deprivation indicators, and socioeconomic status variables. Some subsidiary analysis was also conducted that looked at the individual forms of household deprivation.

The categories and coding for these measures are outlined in Table 1.

## Controls

While important in themselves, a number of other characteristics are not the theoretical focus of this paper, but are included in the model as controls given their place in the overall literature on ethnic identity and ethnic choice. These include gender, and area effects-related variables on ethnic density, population density, and area deprivation.

**Table 1: Variables**

<b>Dependent variables</b>	
Specific ethnic change (Main mixed sample)	Binary variable: 1= 'Changers' – those who changed from one category into another category, and who selected 'mixed' at either or both waves. 0= 'Stable mixed', i.e. stayed the same specific mixed category both times.
Top level ethnic change (Main mixed sample)	Binary variable: 1= 'Changers' – those who changed in or out of the the top-level 'all mixed' category. 0= 'Stable mixed', i.e. stayed within the mixed categories even if they switched between different mixed categories.
Towards white (changers only with white parentage)	Binary variable: 1= 'Towards white' – From non-mixed minority at wave 1 to mixed with white ancestry at wave 2; or from any mixed category at wave 1 to white at wave 2. 0= 'Away from white' - From white at wave 1 to any mixed category at wave 2; or from mixed with white ancestry at wave 1 to non-mixed minority at wave 2.
Out of mixed (changers only)	Binary variable: 1= 'Out of mixed'. Mixed at Wave 1, non-mixed at Wave 1. 0= 'Into mixed'. Non-mixed at Wave 1, mixed at Wave 2
<b>Independent variables</b>	
<i>Personal characteristics</i>	
Age	Continuous years
Age-squared	Continuous years squared
Sex	Binary variable, 1=Female, 0=Male
Ethnic categories	3-category variable 1. (Baseline) Any black parentage reported, i.e. mixed white/Black or any Black category reported 2001-2011 2. Any Asian parentage reported, i.e. mixed white/Asian or any Asian category reported 2001-2011 3. Neither Asian nor Black parentage reported, i.e. Mixed Other
Self-rated health 2001	Binary variable, 1=poor self-rated health
Educational qualifications (individual)	3-category variable 1. No qualifications 2. Non-degree qualifications 3. Degree-level qualifications

Occupational class status (NS-Sec) 2001	4-category variable <ol style="list-style-type: none"> <li>1. Not working (excludes those in FTE and inactive)</li> <li>2. Routine &amp; semi-routine occupations</li> <li>3. Intermediate occupations</li> <li>4. Professional/managerial</li> </ol>
Change in NS-Sec 2001-2011	3-category variable <ol style="list-style-type: none"> <li>1. No change</li> <li>2. Improved</li> <li>3. Worsened</li> </ol>
Relationship breakup	Binary variable, 1=had cohabiting partner or spouse in 2001 but none in 2011; 0=does not meet this condition
Migrant	Binary variable, 1=not born in the UK, 0= born in the UK
<i>Family characteristics</i>	
Grew up in sole parent household 1971-2011	Subsample (all those living with parent/s 1971-2011): Binary variable with 1=sole parented at any point that they were a dependent child, 0=had two parents in home at any point that they were a dependent child. Main sample: Binary variable with 1=sole parented at any point that they were a dependent child, 0=does not meet this condition
Ethnicity of mother	Subsample of those whose mother was in the same household 1991-2011
Ethnicity of father	Subsample of those whose father was in the same household 1991-2011
Change in ethnicity of partner	3-category variable indicating ethnic group of partner in 2001 and 2011 <ol style="list-style-type: none"> <li>1. White to White</li> <li>2. White to Non-white</li> <li>3. Non-white to Non-white</li> <li>4. Non-white to White</li> </ol>
<i>Household deprivation</i>	
Household deprivation score	Continuous variable on scale 1-5, indicating how many household deprivation indicators are present in a household. Deprivation indicators impute whether a household has education deprivation (no person with any qualifications); employment deprivation (no person in work); tenure deprivation (social housing); or health/disability deprivation (someone in household had chronic illness or disability). <ol style="list-style-type: none"> <li>1. No deprivation</li> <li>2. One deprivation indicator</li> <li>3. Two deprivation indicators</li> <li>4. Three deprivation indicators</li> <li>5. Four deprivation indicators</li> </ol>
Change in number of household deprivation indicators 2001-2011	3-category variable <ol style="list-style-type: none"> <li>1. No change (same number of indicators)</li> <li>2. Deprivation decreased (fewer indicators)</li> <li>3. Got worse (more indicators)</li> </ol>
<i>Area effects</i>	
Local ward area deprivation 2011	Continuous variable 1-5 indicating ward position in quintiles of Carstairs deprivation index distribution. The Carstairs index uses four variables derived from ward area statistics from the census: <ol style="list-style-type: none"> <li>1. Proportion male unemployment</li> <li>2. Proportion overcrowded households</li> <li>3. Proportion no car/vans ownership</li> <li>4. Proportion low social class</li> </ol>
Change in ward deprivation 2001-2011	3-category variable <ol style="list-style-type: none"> <li>1. No change</li> <li>2. Improved</li> <li>3. Got worse</li> </ol>
Mixed population density 2011	Continuous variable 1-5 indicating ward position in distribution of quintiles of mixed population percentages within wards. The mixed population ethnic density was chosen over using quintiles of the Herfindel/Blau Diversity index due to multicollinearity.
Change in mixed population density 2001-2011	3-category variable <ol style="list-style-type: none"> <li>1. No change</li> <li>2. Got less mixed</li> <li>3. Got more mixed</li> </ol>
Inter-ward migration flag control	Binary variable indicating whether moved between 2001 and 2011 to a different ward
Population density	Continuous variable indicating population size within local ward area

Source: ONS Longitudinal Study

## Samples

Given this study's focus on socioeconomic status, including change in individual status, the sample is restricted to working age adults not in full-time education, with no data missing on occupation. This allows for hierarchical view of occupational status, and hence class or social status.

The sample is also restricted to people we can assume to be mixed, as the focus of the paper is on people with a clear range of logical 'ethnic options' through their familial ties rather than on analysis of conventional measurement error. Ideally, analysis would combine both self-identified and parent-identified mixed people (i.e. children of interracial partnerships). However, parental ethnicity of LS members is only available if parents were living in the household at the time of the Census. This would limit the age range and exclude children of sole-parent households – and a substantial proportion of mixed people in the UK fall into the latter category. Thus, the main analysis included self-identified mixed people only; defined as any incidence of mixed ethnic group at 2001 or 2011.

The 'changers' were those who shifted in or out of mixed categories; including between mixed groups. The 'stable' group were those who remained in mixed categories in both 2001 and 2011. A smaller group of people shifting between two non-mixed ethnic groups (e.g. between White and Black) were not automatically assumed to be mixed, but were included in some subsidiary analysis. Descriptive data supported the assumption that most of these 'switching monoracials' as Hitlin et.al. call them (Hitlin et al., 2006), are actually mixed given that key characteristics were very close to mixed 'changers', although my own exploratory qualitative research suggests that it is also likely that a portion are non-mixed minorities who tick the 'White British' box.

While a limitation of the study is that there is no way of knowing whether individuals filled in their own Census data, younger individuals and children were less likely to do so and those under 16 have been excluded. Analysis of parental designation of ethnic group is not within the scope of this paper, and the likelihood of parental designation of ethnicity for younger people means that there is a risk of overestimating ethnic instability for those under 16 in 2001 transitioning out of the home by 2011 (Simpson et.al, 2015). This risk still exists for the younger part of the sample, however, as will be discussed, the age effect on ethnic instability was the opposite to that initially assumed. Moreover, checks including only respondents that were the 'Household Reference Person' in 2001 (an updated term for the person previously referred to as 'Head of household') yielded substantively the same results as the models reported below.

**Table 2: Samples**

Sample	Purpose	n	Description
1. Full sample	Descriptive	404,404	All those who reported ethnic group in 2001 and 2011 with no imputed ethnic data (cells fewer than 10 removed).
2. Main mixed sample	Main analysis	3088	All those who selected a 'mixed or multiple' ethnic group category in either 2001 or 2011 or both, with no imputed ethnic data. Excludes under 16, and those in full-time education, to enable adequate occupational status analysis.
3. Moving towards/away from white	Main analysis	1452	Main mixed sample restricted to 'changers' with at least some white ancestry indicated, i.e. chose a white/Asian or white/Black category.
4. Moving in/out of mixed	Main analysis	1702	Main mixed sample restricted to all mixed 'changers' only.

Source: ONS Longitudinal Study

## Descriptive statistics

A full table at Appendix A provides a cross-tabulation of ethnic change between 2001 and 2011 for eight ethnic categories, which replicates the cross-tabulation of the same data in Simpson et.al. (2015) but excludes imputed ethnic data. This results in slightly higher ethnic 'stability' for all minority groups, but substantively the same overall picture.

Of the total 404,404 LS members in the cross-tabulation, only 1.6% changed ethnic category 2001-2011,<sup>7</sup> but of the 5744 who ever chose a mixed category, 49.4% changed ethnic category. Of all 'changers', 41.1% left or entered mixed categories. The Sankey Diagram below at Figure 3 showing the 'churn' in and out of the mixed categories, grouped by top-level ethnic category, shows a shift from White identification into Mixed identification 2001-2011.

As observed by Simpson et.al (2015) and as detailed at Appendix A, the White/Black Caribbean group is the most stable mixed group, reflecting popular understandings of who is 'mixed race' in the UK. The White/Asian group has fairly high instability, likely due to the UK's idiosyncratic and inconsistent approach to what or who qualifies as 'Asian'<sup>8</sup> (See Fig 1 & Fig 2). The residual 'Other mixed' category had the highest instability, and increased in size by 11% between 2001 and 2011, mostly due to a large net increase from the White group.

Increases in size of the 2011 mixed groups were substantially due to net gains from the White category. That is, more 'White' people became 'Mixed' in 2011 than vice versa. This seems to support the idea of a trend away from the stigmatisation of non-white identity, and suggests a period or cohort effect related to increasing cultural acceptance of mixed and minority identities,

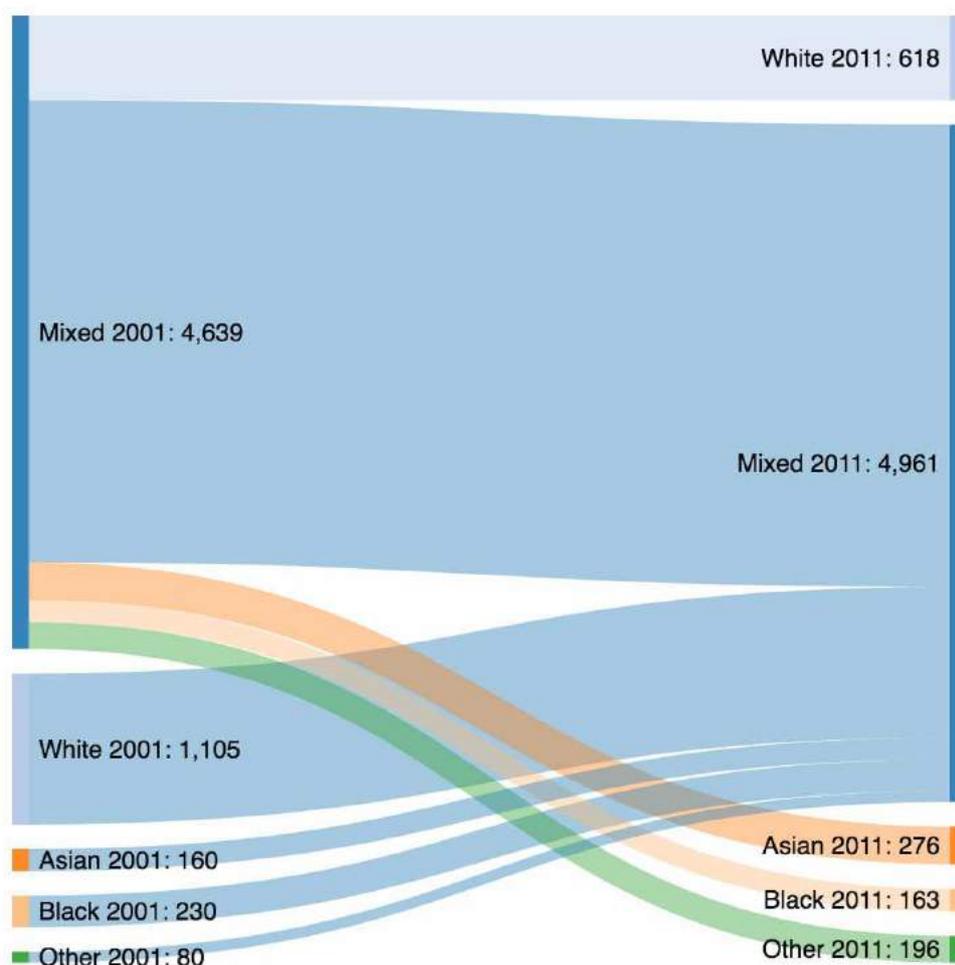
<sup>7</sup> Non-mixed 'changers' may mostly be mixed, although some of the change may be unrelated to affiliations to multiple ethnic ancestry, particularly for, e.g. Middle Eastern or Latin American groups in the 'other' category.

<sup>8</sup> In popular British vernacular, 'Asian' is understood to only refer to South Asians. Chinese people were reclassified from 'Other' to 'Asian' in the 2011 Census, but it is common in administrative data gathering to continue to classify Chinese as 'Other' using the 2001 Census standard (see Figure 2). For comparability here, the 2001 'non-Asian' Chinese category has been retrospectively assigned 'Asian' for the purposes of this table. Detailed inspection reveals little instability in the Chinese category. A further completely new sub-category joined the 'Asian' category in 2011, that of 'Other Asian'. This new category likely accounts for the large shift from 'Other' to 'Asian' in the table.

and/or an accompanying decrease in the attractiveness of the ‘White’ category. The introduction in 2011 of a ‘national identity’ question targeted at those with regional identities affiliated with the constituent nations of the UK (i.e. Welsh, Scottish, etc), and also aimed at improving the acceptability of the ethnic question, (ONS, 2009), may have had some impact here in providing an outlet to express ‘British’ identity before ethnic group.

An interesting flipside is the quite negligible numbers of 2001 Black-identified people who chose various kinds of ‘Other’ in 2011 compared with the high numbers of 2001 White and Asian people who did so. This underlines the historical identification, stigmatisation, and naming of Blackness as the lynchpin of modern and historical ideas about ‘race’ in the West.

Fig 3: Ethnic ‘churn’ in and out of the Mixed categories



Source: ONS Longitudinal Study

Table 3: Descriptive statistics for groups with stable and changing ethnic group, no data missing on demographic, socioeconomic and occupational covariates, aged 16+

Variables	Stable white	Stable minority (excl. 'Other')	Stable specific mixed	Changed (incl. between mixed categories)	Stable mixed in overall category	Changed into or out of overall mixed category	Switching mono-racials
<i>n</i> - no data missing on covariates	283226	20293	1207	1918	1394	1731	557
Mean age in years 2011	54.29	49.66	41.26	47.81	41.46	48.36	50.50
Female 2011 %	52.84%	53.33%	59.00%	53.81%	57.89%	53.44%	50.27%
Black descent ever indicated	N/A	22.26%	54.43%	38.06%	54.16%	36.51%	22.26%
Asian descent ever indicated	N/A	77.74%	32.48%	36.13%	34.51%	34.89%	56.73%
Black/Asian descent never indicated	All	N/A	13.09%	25.81%	11.33%	28.60%	21.01%
Not UK-born	4.31%	7.49%	18.31%	42.75%	20.66%	43.50%	62.12%
Reporting 'not good' health 2011	7.62%	10.18%	5.47%	9.59%	6.17%	9.47%	9.52%
No change in health 2001-2011	91.19%	88.40%	93.04%	89.21%	92.83%	88.97%	86.00%
Reported improvement in health 2001-2011	4.53%	5.89%	4.14%	5.89%	4.02%	6.18%	7.72%
Reported decline in health 2001-2011	4.28%	5.71%	2.82%	4.90%	3.16%	4.85%	6.28%
No quals	25.21%	27.30%	10.77%	23.51%	11.19%	24.55%	20.47%
Non-degree quals	46.92%	41.97%	48.47%	43.38%	47.56%	43.56%	47.76%
Degree-level quals	27.87%	30.73%	40.76%	33.11%	41.25%	31.89%	31.78%
Non-working	3.76%	17.47%	8.53%	11.26%	9.33%	10.92%	14.90%
Routine/semi-routine	27.38%	25.51%	19.14%	26.28%	19.37%	26.86%	22.80%
Intermediate occ & self-empl	33.82%	29.47%	30.49%	29.56%	29.63%	30.16%	30.70%
Prof/managerial	35.04%	27.55%	41.84%	32.90%	41.68%	32.06%	31.60%
No change in occ status 2000-2001	58.61%	55.56%	47.39%	49.95%	47.42%	50.20%	49.91%
went up occupational scale	24.72%	28.84%	35.96%	32.06%	35.87%	31.72%	30.16%
went down occupational scale	16.67%	15.60%	16.65%	17.99%	16.71%	18.08%	19.93%
Sole-parented 1971-2011	6.70%	5.45%	28.67%	13.66%	27.91%	12.65%	7.36%
Last household partner by 2011	10.20%	8.60%	6.30%	11.78%	6.67%	12.07%	9.16%
Average no. of HH deprivation indicators	1.990	2.117	1.956	2.150	1.960	2.168	2.154
no change	49.43%	41.22%	46.06%	42.13%	45.55%	42.11%	40.93%
improved	31.58%	32.08%	34.88%	34.88%	34.58%	35.12%	34.11%
got worse	18.99%	26.69%	19.06%	22.99%	19.87%	22.76%	24.96%
Average Carstairs ward deprivation quintile (1-5 scale)	3.18	4.24	3.72	3.77	3.73	3.76	3.90
no change	55.44%	72.90%	54.35%	60.32%	54.30%	61.01%	69.12%
improved	22.81%	16.38%	28.42%	21.17%	27.62%	21.03%	17.95%
got worse	21.76%	10.73%	17.23%	18.51%	18.08%	17.97%	12.93%
Average mixed ethnic ward density quintile (1-5 scale)	3.202	4.672	4.241	4.179	4.240	4.173	4.354
no change	51.63%	82.69%	66.86%	69.45%	66.57%	69.96%	74.87%
got relatively less mixed	26.70%	11.49%	20.30%	18.04%	20.44%	17.68%	15.80%
got relatively more mixed	21.67%	5.81%	12.8%)	12.51%	12.98%	12.36%	9.34%
Moved areas 2001-2011	41.47%	39.45%	60.56%	51.72%	60.62%	50.72%)	40.93%
Average ward pop density score (1-14)	4.03	6.37	5.52	5.73	5.58	5.69	5.96

Source: ONS Longitudinal Study

Table 3a: Descriptive statistics for groups exhibiting different forms of ethnic change, no data missing on demographic, socioeconomic and occupational covariates, aged 16+

Variables	Changed into mixed	Changed out of mixed	Stable mixed - white ancestry implied	Changed towards white	Changed away from white
<i>n</i> - no data missing on covariates	977	754	1236	592	885
Mean age in years 2011	48.39	48.32	41.21	48.45	48.07
Female 2011 %	52.61%	54.51%	57.36%	53.72%	53.22%
Black descent ever indicated	39.51%	32.63%	61.08%	43.07%	38.42%
Asian descent ever indicated	29.79%	41.51%	38.92%	36.32%	30.28%
Black/Asian descent never indicated	30.71%	25.86%	N/A	20.61%	31.30%
Not UK-born	34.60%	55.04%	18.04%	40.20%	36.95%
Reporting 'not good' health 2011	8.29%	11.01%	6.07%	8.61%	10.28%
No change in health 2001-2011	89.66%	88.06%	92.96%	88.34%	89.60%
Reported improvement in health 2001-2011	5.83%	6.63%	4.13%	7.09%	5.31%
Reported decline in health 2001-2011	4.50%	5.31%	2.91%	4.56%	5.08%
No quals	25.90%	22.81%	11.57%	24.16%	26.44%
Non-degree quals	43.71%	43.37%	49.35%	44.43%	43.95%
Degree-level quals	30.40%	33.82%	39.08%	31.42%	29.60%
Non-working	8.39%	14.19%	9.87%	12.16%	10.28%
Routine/semi-routine	28.97%	24.14%	19.26%	25.68%	28.59%
Intermediate occ & self-empl	30.30%	29.97%	30.58%	31.93%	29.94%
Prof/manAGERIAL	32.34%	31.70%	40.29%	30.24%	31.19%
No change in occ status 2000-2001	49.95%	50.53%	48.46%	48.65%	50.51%
went up occupational scale	32.14%	31.17%	34.95%	31.25%	32.32%
went down occupational scale	17.91%	18.30%	16.59%	20.10%	17.18%
Sole-parented 1971-2011	13.00%	12.20%	29.61%	13.18%	13.45%
Lost household partner by 2011	12.90%	11.01%	6.96%	13.01%	12.43%
Average no. of HH deprivation indicators	2.141	2.203	2.002	2.206	2.193
no change	42.78%	41.25%	44.66%	41.05%	42.15%
improved	32.96%	37.93%	35.68%	37.33%	34.24%
got worse	24.26%	20.82%	19.66%	21.62%	23.62%
Average Carstairs ward deprivation quintile (1-5 scale)	3.746	3.788	3.766	3.720	3.801
no change	58.96%	63.66%	54.45%	59.46%	61.13%
improved	22.42%	19.23%	27.59%	20.95%	21.36%
got worse	18.63%	17.11%	17.96%	19.59%	17.51%
Average mixed ethnic ward density quintile (1-5 scale)	4.103	4.264	4.253	4.152	4.104
no change	67.96%	72.55%	66.42%	70.61%	67.46%
got relatively less mixed	17.30%	18.17%	20.47%	18.24%	18.42%
got relatively more mixed	14.74%	9.28%	13.11%	11.15%	14.12%
Moved areas 2001-2011	51.28%	50.00%	60.92%	50.84%	50.96%
Average ward pop density score (1-14)	5.59	5.82	5.60	5.47	5.69

Source: ONS Longitudinal Study

Table 3 and Table 3a above summarise descriptive characteristics for a range of categories compared in the main analysis. Characteristics are tabulated for samples that exclude units with

missing data on covariates, which are only for those aged 16 and over and in the workforce. The tables also includes stable White, stable minority (excluding ‘Other’), and ‘switching monoracials’ for some overall comparison with the mixed groups. We can see overall that ‘changers’ tend to have substantially different characteristics from the ‘stable’ mixed groups. In particular, ‘changers’ are older and more socioeconomically deprived. However, descriptive differences are not so marked between different types of changers. Logistic regression modelling further examines the predictive power of these characteristics when controlling for other factors.

## Findings: Three regression models predicting ethnic change

### Personal instability and ethnic change

The first model (see Table 4 below) predicted the odds of any change (whether in or out of mixed categories), compared with being ‘stable’ mixed from 2001 to 2011, controlling for a range of embodied, social, economic and local characteristics. This model of change assumes that the direction or kind of change is not as relevant as the fact that there has been instability in categorization. As such, the dependent variable was a binary variable indicating whether a person had changed into a group that was at all different from their 2001 group, even if it stayed within the top-level ‘mixed’ category, e.g. changing from Other Mixed to White/Asian.

The key questions for this model are whether characteristics indicating instability and insecurity (such as lower status, or decline in conditions) were associated with ethnic change, and whether ethnic instability independently decreased over time.

The model did not support the ‘stabilisation over time’ hypothesis. Although I focus on adults (16+) who have left full-time education rather than adolescents and young adults in education, we should expect that if ethnic stabilisation had a linear relationship with age, that we might still see higher instability for the younger age group in the sample. However, as suggested by the descriptive statistics, older age was associated with significantly higher odds of being a ‘changer’ in the UK *ceteris paribus* whether comparing age group categories or examining age as a continuous variable. Compared with the under-35 baseline, the 55+ age group had a 66% increase in chances of being a ‘changer’ and the 35-54 age group had a 36% increase.

This finding contradicts previous assumptions of greater ethnic stability at older ages in other countries, and the reason for this is likely to lie in the contextual cohort experiences of ethnic measurement in the UK, as well as the limitations and changeableness of its technique, as will be

detailed further in the discussion section.

Table 4: Model 1 – predicted odds ratios of ethnic change 2001-2011, Logistic regression, Odds Ratios (SE, Z), AMEs (n=3088)

	<i>O.R.</i>	<i>S.E</i>	<i>z</i>	<i>AME</i>
<b>Embodied/racialised</b>				
Under 35	1	(base)	(base)	0
35-54	1.439**	0.16	(3.226)	0.364**
55+	1.934***	0.261	(4.994)	0.660**
Female	0.806**	0.0659	(-2.633)	-0.216**
Black descent	1	(base)	(base)	0
Asian descent	1.595***	0.15	(4.992)	0.467***
Never Black/Asian	2.767***	0.321	(8.845)	1.018***
Not UK-born	2.426***	0.245	(8.988)	0.886***
Poor health	1.042	0.169	(0.242)	0.041
<b>Individual SES</b>				
No quals	1	(base)	(base)	0
Non-degree quals	0.782*	0.0966	(-1.890)	-0.246*
Degree-level quals	0.727†	0.12	(-1.780)	-0.319†
Non-working	1	(base)	(base)	0
Semi/routine	0.829	0.113	(-1.439)	-0.188
Intermediate occ	0.510***	0.074	(-4.570)	-0.672***
Prof/manAGERIAL	0.458***	0.0809	(-4.357)	-0.780***
<b>Individual change</b>				
Quals did not improve	1	(base)	(base)	0
Quals improved	0.928	0.103	(-0.67)	-0.0746
Occ status same	1	(base)	(base)	0
Occ status improved	0.862	0.0992	(-1.246)	-0.149
Occ status declined	1.229†	0.145	(1.742)	0.206†
<b>Family/household</b>				
Sole-parented	0.619***	0.0651	(-4.661)	-0.479***
HH deprivation score	1.158*	0.0694	(2.506)	0.147*
<b>Household change</b>				
Lost relationship	1.652**	0.252	(3.325)	0.502**
Deprivation stayed same	1	(base)	(base)	0
Deprivation decreased	0.939	0.11	(-0.552)	-0.0625
Deprivation got worse	1.268*	0.137	(2.219)	0.238*
<b>Area effects</b>				
Ward deprivation	0.991	0.0428	(-0.864)	-0.00949
– no change	1	(base)	(base)	0
– improved	0.808*	0.0847	(-2.019)	-0.213*
– got worse	1.137	0.143	(1.191)	0.129
Mixed ethnic density	0.843***	0.0413	(-2.890)	-0.171***
– no change	1	(base)	(base)	0
– decreased	0.888	0.12	(-0.692)	-0.119
– increased	1.156	0.154	(0.653)	0.145
Population density	1.057*	0.0989	(-2.26)	0.0364*
<b>n</b>	3088			
	†p<0.1 * p<0.05 ** p<0.01 *** p<0.001			

Source: ONS Longitudinal Study

However, findings broadly supported the ‘instability/insecurity’ hypothesis. Characteristics related to lower status or socioeconomic insecurity were significantly associated with greater probabilities of change at baseline; and decline in socioeconomic status 2001-2011 was also significantly associated with change. A model that included ‘switching monoracials’ as a check yielded substantively the same findings for the independent variables.

### *Family & relationships*

Those who had a cohabiting partner at 2001 but not in 2011 were significantly more likely to be ‘changers’ than everyone else. A check using a related subsample model including ethnic group of spouses/partners at 2001 and 2011<sup>9</sup>, indicated that change in partnering is associated with a change away from the ethnic group of the former partner, and is more significant for the under 40 age group. This is both relatively intuitive, and supported by social psychological theories about identity and intimate relationships discussed earlier. This is some evidence in favour of the notion of ethnic identity being more subject to influence by intimate and family relationships at younger ages.

Growing up in a sole parent household was not associated with ethnic ‘instability’, but rather was significantly associated with being stable mixed<sup>10</sup>. The absence of the other parent may mean that the person is not presented with two potentially competing ethnic affiliations. There is also some evidence that mixed children of white sole parents in the UK (usually the mother) are consistently ascribed as mixed in social interactions, due to a perceived contrast with their white parent that would not be pointed out if they were raised by a sole ethnic minority parent (Caballero, Edwards, & Puthussery, 2008). As noted, incomplete data about ethnic group of parents in the ONS LS has limited the possibilities of analysis in this area.

### *Socioeconomic status*

Ethnic change was associated with indicators of deprivation or low status, supporting the hypothesis that materially insecure conditions are related to unstable ethnic identity.

---

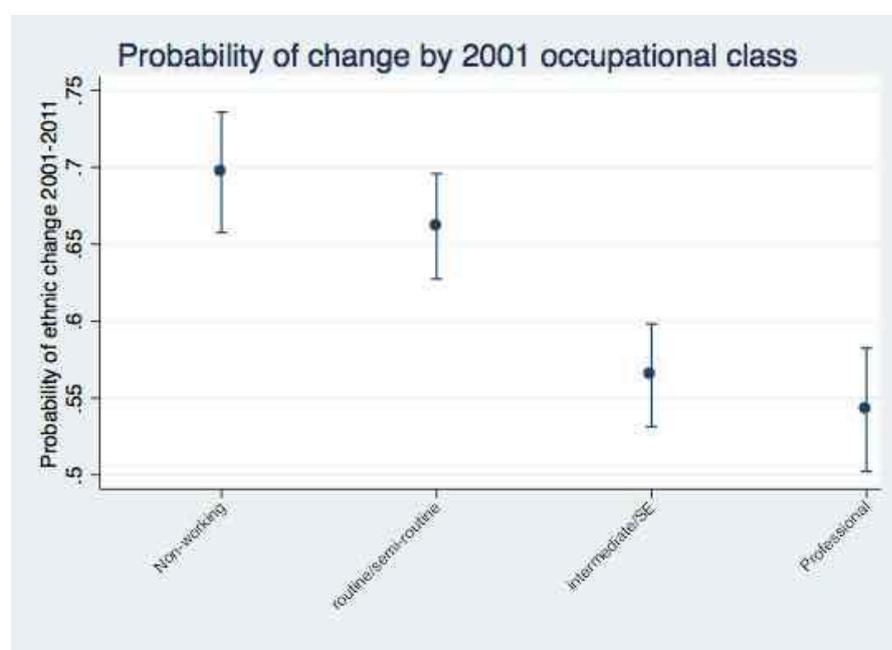
<sup>9</sup> A better sequential measure would have been 1991-2001 partner ethnic change, but sample sizes were too small to model this robustly for those who switched from nonwhite to white partners.

<sup>10</sup> This finding was consistent in the main mixed sample model (which assumes that growing up in a sole parent household was very rare prior to 1971) and in a smaller subsample model that included only people who were dependent children in households 1971-2011 as a crosscheck.

Those with no qualifications were significantly more likely to change, though the amount or level of qualifications did not seem to make much difference as long as there were some. This may suggest that an absolute lack of qualifications predicts greater cognitive problems with the UK's long and relatively complex list of ethnic options.

Similarly to education, those at the lower levels of the NS-Sec occupational status scale were also more likely to be changers, even when controlling for all other variables. Decline in occupational status 2001-2011 was also associated with ethnic change.

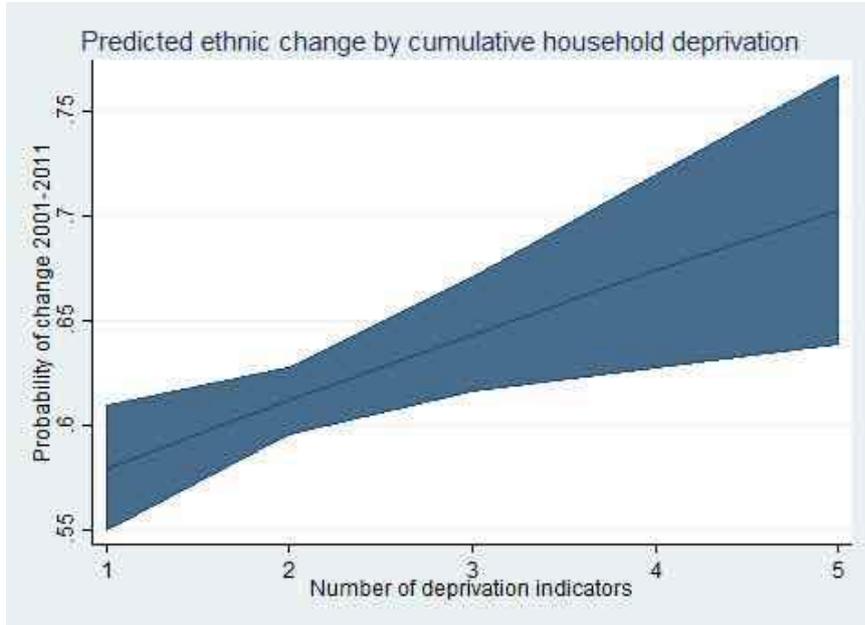
Figure 3: Predicted probabilities of ethnic change 2001-2011 for mixed people, by occupational class 2001.



Source: ONS Longitudinal Study. Controls for variables specified in Table 4.

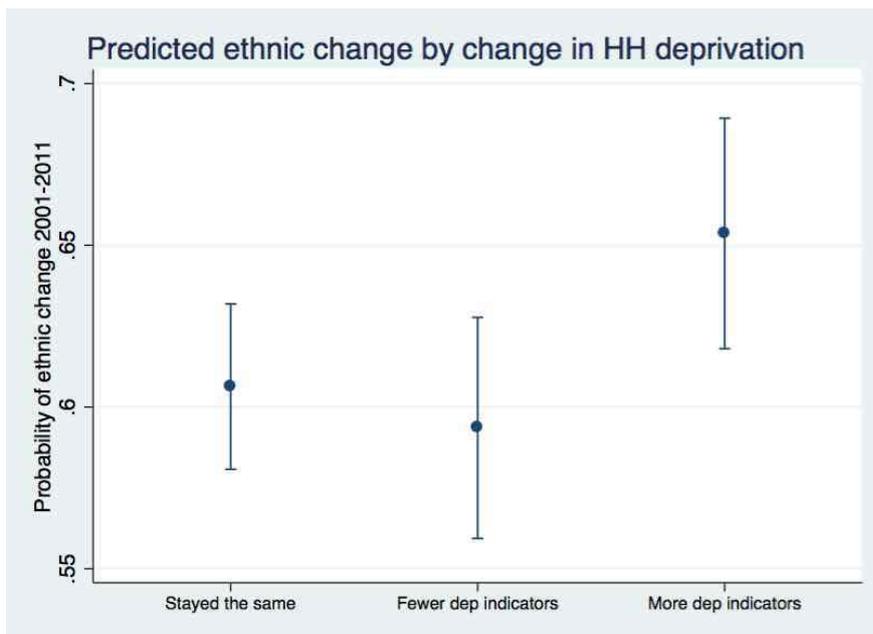
When controlling individually for specific forms of household deprivation in subsidiary models, improvement in tenure status was associated with ethnic change, suggesting that improving conditions can also be associated with ethnic change. However, when considered together, a higher number of household deprivation indicators (comprising employment, tenure, education and health/disability deprivation) were significantly associated with a higher probability of ethnic change, *ceteris paribus*. Worsening deprivation as indicated by an increase in the number of areas of household deprivation 2001-2011 was also significantly associated with a higher probability of ethnic change.

Figure 4: Predicted probabilities of ethnic change 2001-2011 for mixed people, by number of 2001 household deprivation indicators



Source: ONS Longitudinal Study. Controls for variables specified in Table 4.

Figure 5: Predicted probabilities of ethnic change 2001-2011 for mixed people, by change in numbers of household deprivation indicators 2001-2011



Source: ONS Longitudinal Study. Controls for variables specified in Table 4.

This model does not show that ethnic identity (as proxied by reported ethnic group), is a conventionally linear life-journey towards stable ‘achieved identity’ for mixed people. However, overall, the model provides fairly good evidence that worse conditions at baseline, and decline in social conditions, predict higher probability of reported ethnic change.

### Strategic change: Racial ladder vs mixed privilege

The findings from my first model show that ‘success’ does not predict whitening or moving into mixed identities overall – in fact, ‘success’ predicts a lack of ethnic change.

However, in order to answer the question of whether better or worse conditions, or better or worse kinds of change, predict particular kinds of ethnic change for people who *do* change their ethnic group, two further binary logistic models were estimated. Samples used only those mixed people who changed their reported ethnic group in 2011. We look again at the characteristics that predicted change in the first model, and whether the change goes in any ‘direction’ that supports theories about racialized social stratification or post-materialist middle-class individualism.

The model that examined potential ‘whitening’ only included those who indicated a connection to white ancestry, either through selection of one of the ‘Mixed White/-’ categories, or through choosing a non-mixed White category, in order to test hypotheses about what predicts moves ‘towards’ versus ‘away from’ whiteness. The ‘mixed privilege’ model predicted moves ‘in’ versus ‘out’ of mixed categories. Findings for the two models are reported and discussed together for comparative purposes. Both the ‘whitening’ and ‘mixed privilege’ hypotheses discussed earlier rely on assumptions of strategic social identity change for mixed people – with white identity at the top of a materialist aspirational hierarchy for the ‘whitening’ model; and mixed identity at the top of a post-materialist ‘mixed privilege’ model.

Table 6 below is divided into two parts. In the part that reports on the Model 2 ‘whitening’ findings, coefficients with an odds ratio  $>1$  will indicate that that this variable is associated with ‘moving up’ towards whiteness compared to those ‘moving down’ towards non-mixed minority identity. For the part of Table 6 reporting on Model 3 ‘mixed privilege’ findings, coefficients with an odds ratio  $>1$  indicate that this variable is associated with ‘changing out’ of a mixed category rather than changing into mixed.

Table 5: Two models predicting odds ratios (z) for direction of ethnic change, for ethnic ‘changers’ 2001-2011. Model 2 odds of “Moving towards vs away from White” (n=1452); Model 3 odds of “Moving out of vs into Mixed” (n=1702).

	<b>Model 2: Towards vs away from White</b>		<b>Model 3: Out of vs into Mixed</b>	
	<i>O.R.</i>	<i>z</i>	<i>O.R.</i>	<i>z</i>
<b>Embodied/racialised</b>				
Under 35	1	(base)	1	(base)
35-54	1.161	(0.91)	1.171	(1.01)
55+	1.191	(0.95)	1.006	(0.04)
Female	1.045	(0.40)	0.956	(-0.43)
Black descent	1	(base)	1	(base)
Asian descent	0.996	(-0.03)	1.425**	(2.82)
Never Black/Asian	0.546***	(-4.24)	0.871	(-1.05)
Not UK-born	1.058	(0.44)	2.256***	(6.87)
Poor health	1.059	(0.30)	1.244	(1.19)
<b>Individual SES</b>				
No quals	1	(base)	1	(base)
Non-degree quals	1.364*	(2.03)	1.392*	(2.29)
Degree-level quals	1.523*	(2.05)	1.796**	(3.03)
Non-working	1	(base)	1	(base)
Semi/routine	0.908	(-0.55)	0.602**	(-3.08)
Intermediate occ	0.898	(-0.56)	0.441***	(-4.39)
Prof/managerial	1.007	(0.03)	0.506**	(-3.11)
<b>Individual change</b>				
Quals did not increase	1	(base)	1	(base)
Quals increased	0.914	(-0.59)	1.002	(0.01)
Occ status same	1	(base)	1	(base)
Occ status improved	1.040	(0.26)	0.787†	(-1.65)
Occ status declined	1.223	(1.27)	1.189	(1.15)
<b>Family/household</b>				
Sole-parented	1.017	(0.10)	1.095	(0.55)
HH deprivation score	1.018	(0.23)	0.999	(-0.01)
<b>Household change</b>				
Lost relationship	1.009	(0.05)	0.847	(-1.01)
Deprivation stayed same	1	(base)	1	(base)
Deprivation decreased	1.132	(0.80)	1.234	(1.44)
Deprivation got worse	0.920	(-0.57)	0.869	(-1.02)
<b>Area effects</b>				
Ward deprivation	0.965	(-0.61)	0.953	(-0.87)
– no change	1	(base)	1	(base)
– improved	1.028	(0.18)	0.796	(-1.61)
– got worse	1.099	(0.57)	0.883	(-0.79)
Mixed ethnic density	1.065	(0.99)	1.071	(1.11)
– no change	1	(base)	1	(base)
– decreased	1.022	(0.12)	1.346	(1.71)
– increased	0.722	(-1.79)	0.757	(-1.58)
Moved areas	0.988	(-0.09)	1.021	(0.17)
Population density	0.979	(-0.68)	1.006	(0.19)
<b>N</b>	1452		1704	

Source: ONS Longitudinal Study

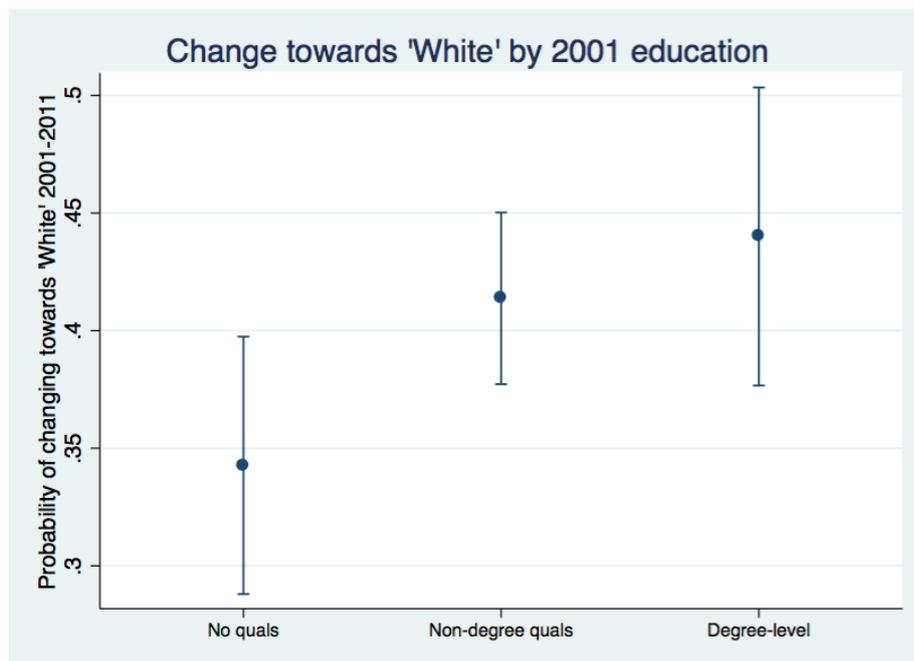
Numerous variables significantly associated with general ethnic change in Model 1 were not significant in these two ‘changers-only’ models, indicating that they may be associated with a form of ‘random’ change – i.e. no particular direction or type of change *on average*. For example, when comparing significant coefficients in Model 1 (Table 4) with the findings of Model 2 and 3 (Table 5), we do not see a consistent or significant ‘direction’ of change associated with household deprivation or change in household deprivation, or with age. This might suggest that these ‘random’ forms of change could be related to cognitive issues with the questionnaire or low contextual importance placed on ethnic identification and form-filling, for example for those with stresses in the home or family, or for older people who have been subjected to several decades of changes in the ethnic question, as will be discussed further. The theorisation of ethnic identity as contextual, in flux, and constructed at the site of representation, takes a quite literal form here in respondents’ approach to the Census page. We should also note that the sample size is roughly halved for Model 2 and Model 3 compared with Model 1, and this could also be a factor in the reduced significance.

Some socioeconomic variables remained statistically significant, and have some relevance to the two hypotheses about social hierarchies.

Even though successful conditions predict lack of change rather than ‘whitening’ or becoming mixed, for changers, higher levels of education at the 2001 baseline, compared with having no qualifications, were significantly associated with moving towards White rather than away from White when looking only at changers. In the ‘mixed privileged’ model, higher 2001 education was significantly associated with moving out of mixed. Was this a ‘whitening’ effect? When looking at the predicted probabilities, the point estimates for the higher educated categories were estimated at 50% or less (Figs 6 and 7), so we could describe this more intuitively as a move away from White and into Mixed for those with no qualifications at 2001, holding all else constant, fitting the overall movement away from White and into Mixed in the descriptive statistics. This effect was not predicted by occupational status when controlling for other factors, nor by change in any conditions.

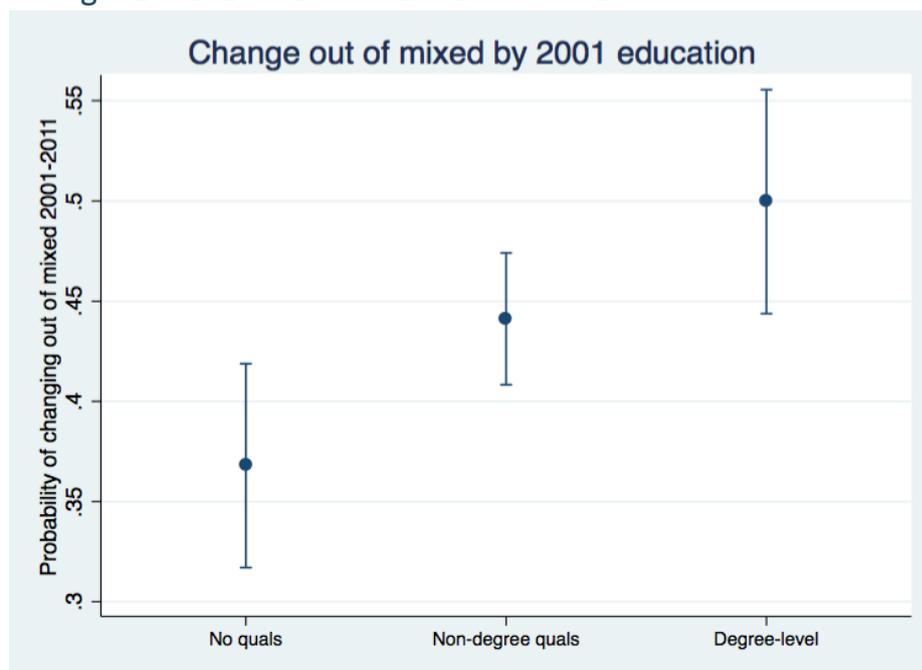
Separately, results from Model 3 provided some evidence to support the ‘mixed privilege’ hypothesis for changers. Higher 2001 occupational status significantly predicted moving into Mixed categories, and *improved* occupational status 2001-2011 also marginally significantly predicted moving into Mixed categories, *ceteris paribus*.

Figure 6: Predicted probabilities of people who changed ethnic group 2001-2011 moving towards vs away from White, for three categorical levels of 2001 education.



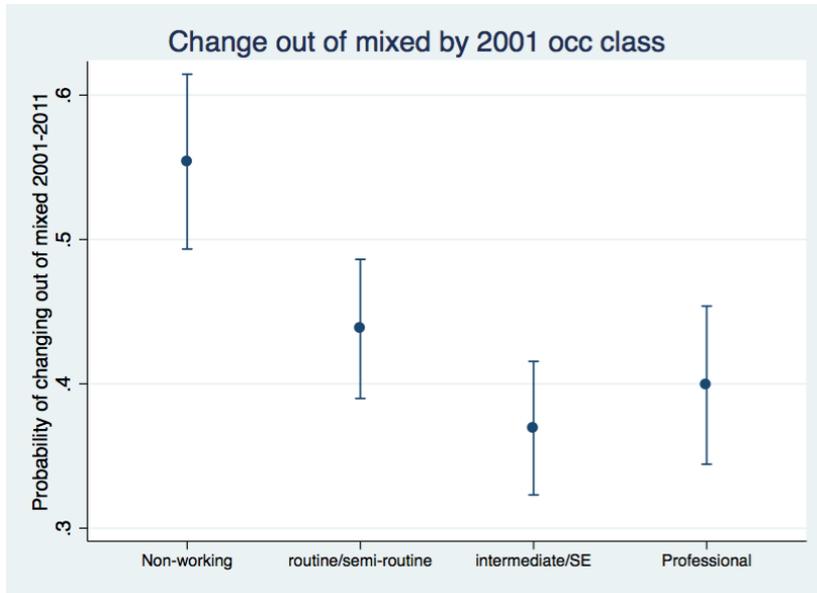
Source: ONS Longitudinal Study. Model controls for all variables listed in Table 5.

Figure 7: Predicted probabilities of people who changed ethnic group 2001-2011 moving out of rather than into a Mixed category, for three categorical levels of 2001 education.



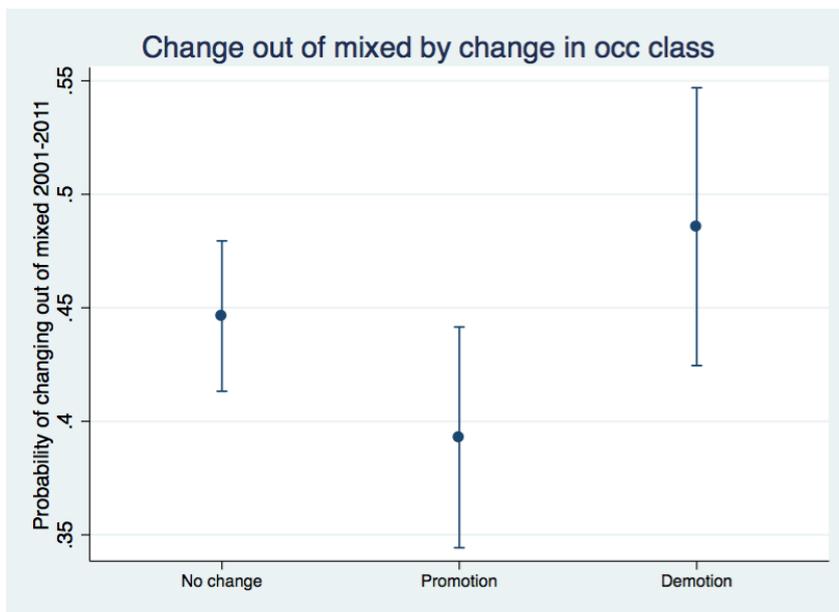
Source: ONS Longitudinal Study. Model controls for all variables listed in Table 5.

Figure 8: Predicted probabilities of people who changed ethnic group 2001-2011 moving out of rather than into a Mixed category, for four categorical levels of 2001 occupational class.



Source: ONS Longitudinal Study. Model controls for all variables listed in Table 5.

Figure 8: Predicted probabilities of people who changed ethnic group 2001-2011 moving out of rather than into a Mixed category, by change in categorical occupational class 2001-2011



Source: ONS Longitudinal Study. Model controls for all variables listed in Table 5.

## Contextual change: Exceptional groups

The impact of national-level discourses governing who is supposed to be ‘mixed’ was clear. Ethnic group – and by extension, racialization – was a consistent predictor of ethnic change and type of change, with large effect sizes. As reflected in both the descriptive statistics and the Model 1 results, those who had ever stated that they belonged to a Black ethnic group or a mixed white/Black ethnic group were significantly more likely to be ethnically ‘stable’ than those with Asian and Other Mixed ancestry.

For the ‘changer’ models, the ‘Mixed others’ with no Black or Asian ancestry indicated were significantly associated with moving ‘away from white’ compared with the Black-descended baseline, as suggested by the descriptive data. Related quantitative and qualitative research (Mok, forthcoming) suggests that this group will often have a Middle Eastern parent and cross-sectionally is the largest subgroup in the white-identified mixed population, meaning that there is a larger possible base of White identification for them to move ‘away’ from. It is also possible that increasing racialization of Middle Eastern people and people imputed to be Muslim 2001-2011 could have contributed to this relative shift away from White (Moosavi, 2015; Steve Garner & Saher Selod, 2015).

Meanwhile, the Asian-related group moves significantly away from the mixed category compared with the Black-related group, reflecting lower acceptance of the mixed white/Asian term. Notably, descriptive statistics show that 57% of ‘switching monoracials’ switched between a White and an Asian category, reinforcing this picture of lower acceptability of the ‘mixed’ category for people with White and Asian ancestry.

Importantly, being born outside the UK had by far the largest association with ethnic change of all variables, with an average marginal effect of an 89% increase in probability of being a changer. This reinforces that certain groups have been less likely to adopt uniquely British social and cultural conventions or understandings about what a mixed person is supposed to be; or and may not adhere to barely settled national understandings of the difference between national, ethnic, cultural and ‘racial’ identity. This is again reinforced by the descriptive data on ‘switching monoracials’, which shows that they are the group most likely to be born outside the UK. Unlike age and household deprivation or instability, being born outside of the UK was associated with particular kinds of ethnic change. In subsidiary analysis, for under-40s born outside the UK, the change is a move towards whiteness, and for all ages, away from being mixed. It may reflect that those not born in the UK are not as effectively captured by the trend

towards social acceptability or celebration of mixed identity compared with the British-born baseline. Or, migrants who initially considered themselves ethnically, racially or culturally ‘mixed’ may find that British society does not view them as such – they may come to embrace more ‘British’ identities under the rubric of whiteness, or go the other way towards identities that more unambiguously reflect their country of birth, in response to contextual social cues.

## Discussion

Overall, findings supported the main plank of the ‘instability’ theory. Worse material, social or personal conditions tended to predict more ethnic change; while worsening socioeconomic conditions also predicted ethnic change. It seems that life transitions, including some with not necessarily negative outcomes but which still imply personal or household destabilisation, may result in revision of ethnic identification for mixed people, and that this process is ongoing throughout the life-course. Contrary to assumptions guiding the focus of previous research, such transitions do not stop at young adulthood. However, there are some indications that at younger ages, family, household, and intimate relationships have more of an impact. This makes some intuitive sense in the context of social psychological theories about the sources of influence on identity-development for younger people (Aron et al., 1995; Phinney, 1990; Syed et al., 2007).

Successful conditions did not appear to ‘whiten’ or push people towards mixed categories overall; rather, better conditions or improvement in conditions were associated with a lack of ethnic change. Thus, at this point in the brief history of ethnic enumeration in the UK, we cannot view reported ethnic change as ‘aspirational’ on average. Moreover, the worse household-level conditions that predicted ethnic change were not associated with change in any particular direction, i.e. down a ‘racial ladder’ or out of mixed categories.

However, some individual-level socioeconomic indicators were associated with direction of change. When analyzing differences between groups of changers themselves, there was some evidence that lower levels of education is associated with moves away from White and into Mixed categories, and that better occupational status is associated with moves into Mixed categories rather than out of them. In a sense, these two contrasting findings posed more questions than they answered. However, given that White-identified mixed people in the UKHLS are more likely to be working class to start with (Mok, forthcoming), the move away from White for lower-educated ‘changers’ may reflect a period-effect shift towards the social destigmatisation of Mixed and minority identity.

Meanwhile, the more country-specific and group-specific expectations at outset about how varied experiences of racialization, cultural ideologies, migrancy and generational cohorts will predict ethnic change for individuals, resulted in findings that were theoretically consistent and had the largest effect sizes, even as they were very context-specific.

For example, migrants appeared to have substantially different tendencies to the local-born, resisting the apparent cohort trend towards mixedness that by contrast, we see as a key characteristic of the British-born ‘mixed Others’. Also, older adults were more likely to change their ethnic group, which contradicts a large body of research and theory on ethnic identity stabilisation over time, but which met local expectations about cohort and period effects, and the unique context of the very new and fluctuating UK approach to ethnic enumeration in the Census. The Census ethnic question has changed every year since the question was introduced in 1991 (see Fig 1), and administrative ethnic group data collection in other areas of government can reflect any of the three Census waves, or a poor approximation of them (see Fig 2). Older mixed people in the UK will have lived through more of this inconsistency, as well as experienced more change in social norms. Meanwhile, younger mixed people will have grown up with more consistent mixed options in data collection, as well as less stigmatisation of mixed people to start with.

Data analysis alone cannot definitively differentiate between straightforward cognitive measurement problems, substantive ‘identity change’, strategic ‘identification change’ or the phenomenon of contextual flux in identification or identity. This points to the need for qualitative research into these issues using sampling techniques that allow us to target broadly representative demographic and socioeconomic quotas, including older ‘changers’.

I am conducting such research concurrently using a nested sample of the UK Household Longitudinal Study. Exploratory results have uncovered cohort differences in attitudes towards acceptability of mixed labels, as well as some evidence of path-dependency or mismeasurement out of habit for older people after a lifetime of restricted mono-ethnic options. Preliminary findings also underline the exceptionalism of the racialised Black and mixed White/Black experience in the UK compared with other mixed groups, which supports further iterative analysis focusing on this population.

The present study’s findings highlight broader sociological questions to be explored further by the qualitative research, and further quantitative analysis. Ultimately, despite worse socioeconomic position predicting ethnic change, quantitative analysis has not shown that *kinds*

of individual ethnic change in the UK consistently follow a simple racial hierarchical logic. This highlights the importance of using a theoretical framework of contextual ethnic identification and identity to analyse more granular responses to social and racial hierarchies.

## References

- Ahmed, S. (1999). 'She'll Wake Up One of These Days and Find She's Turned into a Nigger' - Passing through Hybridity. *Theory, Culture & Society*, 16(2), 87–106.
- Alba, R. (2016). The Likely Persistence of a White Majority. *The American Prospect Magazine*.
- Alba, R., & Islam, T. (2009). The case of the disappearing Mexican Americans: An ethnic-identity mystery. *Population Research and Policy Review*, 28(2), 109–121.
- Aron, A., Paris, M., & Aron, E. N. (1995). Falling in love: Prospective studies of self-concept change. *Journal of Personality and Social Psychology*, 69(6), 1102.
- Aspinall, P. J., & Song, M. (2013a). Is race a 'salient...' or 'dominant identity' in the early 21st century: The evidence of UK survey data on respondents' sense of who they are. *Social Science Research*, 42(2), 547–61.
- Aspinall, P. J., & Song, M. (2013b). *Mixed race identities*. Palgrave Macmillan.
- Aspinall, P. J., Song, M., & Hashem, F. (2008). The ethnic options of 'mixed race' people in Britain: Full Research Report. *ESRC Society Today*, 20–28.
- Bailey, S. R. (2006). Multiracial versus Collective Black Categories: Examining Census Classification Debates in Brazil. *Ethnicities*, 6(1), 74–101.
- Barth, F. (1969). Ethnic Groups and Boundaries. *Ethnic Groups and Boundaries. The Social Organization of Culture Difference*, 9–38.
- Bastos, J. L., Dumith, S. C., Santos, R. V., Barros, A. J. D., Del Duca, G. F., Gonçalves, H., & Nunes, A. P. (2009). Does the way I see you affect the way I see myself? Associations between interviewers' and interviewees' 'color/race' in southern Brazil. *Cadernos de Saúde Pública*, 25(10), 2111–2124.
- Berry, J. W. (1995). Psychology of Acculturation. In *The culture and psychology reader* (p. 457). NYU Press.
- Berry, J. W. (1997). Immigration, Acculturation, and Adaptation, 46(1), 5–34.
- Bonilla-Silva, E. (2002). We are all Americans!: the Latin Americanization of racial stratification in the USA. *Race and Society*, 5(1), 3–16.
- Bonilla-Silva, E. (2004). From bi-racial to tri-racial: Towards a new system of racial stratification in the USA. *Ethnic and Racial Studies*, 27(6), 931–950.
- Brodin, K. (1998). *How Jews became white folks and what that says about race in America*. Rutgers University Press.
- Burma, J. H. (1946). The Measurement of Negro 'Passing'. *American Journal of Sociology*, 52(1), 18–22.
- Burton, J., Nandi, A., & Platt, L. (2010). Measuring ethnicity: challenges and opportunities for survey research. *Ethnic and Racial Studies*, 33(8), 1332–1349.
- Caballero, C., Edwards, R., & Puthussery, S. (2008). *Parenting 'mixed' children: negotiating difference and belonging in mixed race, ethnicity and faith families*.
- Carter, K., Hayward, M., Blakely, T., & Shaw, C. (2009). How much and for whom does self-identified ethnicity change over time in New Zealand? Results from a Longitudinal study.

- Social Policy Journal of New Zealand*, (36), 32–45.
- Carvalho, J. A. M. de, Wood, C. H., & Andrade, F. C. D. (2004). Estimating the stability of census-based racial/ethnic classifications: The case of Brazil. *Population Studies*, 58(3), 331–343.
- DaCosta, K. M. (2007). *Making multiracials: State, family, and market in the redrawing of the color line*. Stanford University Press.
- Davenport, L. D. (2016). The Role of Gender, Class, and Religion in Biracial Americans Racial Labeling Decisions. *American Sociological Review*, 81(1), 57–84.
- Dineen-Wimberly, I., & Spickard, P. (2010). 'It's not that simple': multiraciality, models, and social hierarchy. In K. O. Korgen (Ed.), *Multiracial Americans and Social Class: The Influence of Social Class on Racial Identity*, edited by Kathleen Korgen. New York: Routledge (pp. 205–221). na.
- Eckard, E. W. (1947). How Many Negroes 'Pass'? *American Journal of Sociology*, 52(6), 498–500.
- Ellemers, N. (1993). The Influence of Socio-structural Variables on Identity Management Strategies. *European Review of Social Psychology*, 4(1), 27–57.
- Emeka, A., & Vallejo, J. A. (2011). Non-Hispanics with Latin American ancestry: Assimilation, race, and identity among Latin American descendants in the US. *Social Science Research*, 40(6), 1547–1563. <http://doi.org/10.1016/j.ssresearch.2011.06.002>
- Fhagen-Smith, P. (2010). Social class, racial/ethnic identity, and the psychology of 'choice'. In *Multiracial Americans and Social Class: The Influence of Social Class on Racial Identity*, edited by Kathleen Korgen. New York: Routledge (pp. 30–38).
- Ford, R., Jolley, R., Katwala, S., & Mehta, B. (2012). *The melting pot generation: How Britain became more relaxed on race*.
- Francis, A. M., & Tannuri-Pianto, M. (2013). Endogenous Race in Brazil: Affirmative Action and the Construction of Racial Identity among Young Adults. *Economic Development and Cultural Change*, 61(4), 731–753.
- Goffman, E. (2009). *Stigma: Notes on the management of spoiled identity*. Simon and Schuster.
- Haraway, D. (1991). A cyborg manifesto: science, technology, and socialist-feminism in the late twentieth century. *Simians, Cyborgs and Women: The Reinvention of Nature*, 149–182.
- Harris, D. R., & Sim, J. J. (2002). Who Is Multiracial? Assessing the Complexity of Lived Race. *American Sociological Review*, 67(4), 614.
- Hitlin, S., Brown, J. S., & Elder, G. H. (2006). Racial self-categorization in adolescence: Multiracial development and social pathways. *Child Development*, 77(5), 1298–1308.
- Ignatiev, N. (2009). *How the Irish became white*. Routledge.
- Kim, C., Laroche, M., & Tomiuk, M. a. (2004). The Chinese in Canada: a study in ethnic change with emphasis on gender roles. *The Journal of Social Psychology*, 144(1), 5–29.
- Kukutai, T. (2007). White Mothers, Brown Children: Ethnic Identification of Maori-European Children in New Zealand. *Journal of Marriage and Family*, 69(December), 1150–1161.
- Kukutai, T. (2008). Ethnic Self-prioritisation of Dual and Multi-ethnic Youth in New Zealand A

- discussion paper prepared for Statistics New Zealand, (October).
- Kukutai, T., & Didham, R. (2009). In Search of Ethnic New Zealanders: National Naming in the 2006 Census. *Social Policy Journal of New Zealand*, 2006(36), 46–62.
- Laroche, M., Kim, C., Hui, M. K., & Joy, A. (1996). An Empirical Study of Multidimensional Ethnic Change. *Journal of Cross-Cultural Psychology*, 27(1), 114–131.
- Lewandowski, G. W., Aron, A., Bassis, S., & Kunak, J. (2006). Losing a self-expanding relationship: Implications for the self-concept. *Personal Relationships*, 13(3), 317–331.
- Liebler, C. A., Rastogi, S., Fernandez, L., Noon, J., & Ennis, S. R. (2014). America's churning races: Race and ethnic response changes between Census 2000 and the 2010 Census. *CARRA Working Paper Series*, 259–284.
- Mahtani, M. (2002). Tricking the border guards: Performing race. *Environment and Planning D: Society and Space*, 20(4), 425–440.
- Mihoko Doyle, J., & Kao, G. (2007). Are Racial Identities of Multiracials Stable? Changing Self-Identification Among Single and Multiple Race Individuals. *Social Psychology Quarterly*, 70(4), 405–423.
- Miranda-Ribeiro, P., & Junqueira Caetano, A. (2005). *Como eu me vejo e como ela me vê: um estudo exploratório sobre a consistência das declarações de raça/cor entre as mulheres de 15 a 59 anos no Recife, 2002*.
- Mitchell-Walthour, G., & Darity, W. (2015). Choosing Blackness in Brazil's Racialized Democracy: The Endogeneity of Race in Salvador and São Paulo. *Latin American and Caribbean Ethnic Studies*, 9(3), 318–348.
- Moosavi, L. (2015). The Racialization of Muslim Converts in Britain and Their Experiences of Islamophobia. *Critical Sociology*, 41(1), 41–56.
- Morning, A. (2014). Multiraciality and Census classification. In R. C. King-O'Riain, S. Small, M. Mahtani, M. Song, & P. Spickard (Eds.), *Global Mixed Race* (pp. 1–15). NYU Press.
- NIDEA. (2013). Ethnicity Counts? Census forms. Retrieved 17 April 2016, from <http://www.waikato.ac.nz/nidea/research/ethnicitycounts/census-forms>
- Nishime, L. (2005). The Mulatto Cyborg: Imagining a Multiracial Future. *Cinema Journal*, 44(2), 34–49.
- Nix, E., & Qian, N. (2015). *The Fluidity of Race: "Passing" in the United States, 1880-1940*.
- ONS. (2009). *Final recommended questions for the 2011 Census in England and Wales National identity*.
- Parker, K., Morin, R., Menasce Horowitz, J., & Lopez, M. H. (2015). *Multiracial in America: Proud, Diverse and Growing in Numbers*. Pew Research Center.
- Penner, A. M., & Saperstein, A. (2013). Engendering Racial Perceptions: An Intersectional Analysis of How Social Status Shapes Race. *Gender & Society*, 27(3), 319–344.
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: review of research. *Psychological Bulletin*.
- Phinney, J. S., & Alipuria, L. L. (1996). At the interface of cultures: Multiethnic/multiracial high school and college students. *The Journal of Social Psychology*, 136(2), 139–158.

- Porter, S. R., Liebler, C. A., & Noon, J. (n.d.). *Race and Socioeconomic Milieu and the Permeability of Group Boundaries: How Place Shapes Race*.
- Pravaz, N. (2003). Brazilian Mulattice: Performing Race, Gender, and the Nation. *Journal of Latin American Anthropology*, 8(1), 116–146.
- Roberts, L. M., Settles, I. H., & Jellison, W. A. (2008). *Predicting the Strategic Identity Management of Gender and Race. Identity: An International Journal of Theory and Research* (Vol. 8).
- Roediger, D. R. (2006). *Working toward whiteness: How America's immigrants became white: The strange journey from Ellis Island to the suburbs*. Basic Books.
- Root, M. (1994). Bill of Rights for People of Mixed Heritage. Retrieved February.
- Saperstein, A., & Penner, A. M. (2012). Racial Fluidity and Inequality in the United States 1. *American Journal of Sociology*, 118(3), 676–727.
- Saperstein, A., & Penner, A. M. (2016). Still Searching for a True Race? Reply to Kramer et al. and Alba et al. *American Journal of Sociology*, 122(1), 263–285.
- Saperstein, A., Porter, S. R., & Noon, J. (n.d.). Reinforcing Inequality : The Relationship between Racial Mobility and Employment and Occupational Transitions: Proposal for the 2017 annual meetings of the Population Association of America.
- Schwartzman, L. F. (2007). Does Money Whiten? Intergenerational Changes in Racial Classification in Brazil. *American Sociological Review*, 72(6), 940–963.
- Simpson, L. (2014). *How have people's ethnic identities changed in England and Wales?*
- Simpson, L., Jivraj, S., & Warren, J. (2014). The stability of ethnic group and religion in the Censuses of England and Wales 2001-2011. *CODE Working Paper*, (March), 1–28.
- Statistics New Zealand. (2013). Index of historical census questions.
- Stephens, N. M., Markus, H. R., & Townsend, S. S. M. (2007). Choice as an act of meaning: the case of social class. *Journal of Personality and Social Psychology*, 93(5), 814.
- Steve Garner & Saher Selod. (2015). The Racialization of Muslims : Empirical Studies of Islamophobia. *Critical Sociology*, 41(1), 9–19.
- Syed, M., Azmitia, M., & Phinney, J. S. (2007). Stability and Change in Ethnic Identity among Latino Emerging Adults in Two Contexts. *Identity*, 7(2), 155–178.
- Townsend, S. S. M., Fryberg, S. a., Wilkins, C. L., & Markus, H. R. (2012). Being mixed: Who claims a biracial identity? *Cultural Diversity and Ethnic Minority Psychology*, 18(1), 91–96.

## Appendix A: Cross tabulation of 8 ethnic categories from the ONS LS, 2001 and 2011

Cell counts <10 redacted and row/column percentages recalculated

**Key**  
 Column per cent : Where this 2011 group came from in 2001  
 Row per cent : Where this 2001 group went in 2011

		2011												Total
		White	White/Black Caribbean	White/Black African	White/Asian	Any other mixed	Asian	Black	Other				Total	
		Col%	Col%	Col %	Col %	Col %	Col %	Col %	Col %	Col %	Col %	Col %		
<b>2001</b>	<b>White</b>	366,382	349	58	267	431	291	87	618				368,483	
	Row %	99.43	0.09	0.02	0.07	38.04	0.08	0.02	0.17				100%	
	<b>White/Black Caribbean</b>	148	1,357	17	x x	64	x x	72	x x				1,658	
	Row %	8.93%	81.85%	1.03%	x	3.86%	x	4.34%	x				100%	
	<b>White/Black African</b>	48	22	339	x x	48	x x	59	32				548	
	Row %	8.76%	4.01%	61.86%	x	8.76%	x	10.77%	5.84%				100%	
	<b>White/Asian</b>	213	x x	x x	885	93	165	x x	56				1,412	
	Row %	15.08%	x	x	62.68%	6.59%	11.69%	x	3.97%				100%	
	<b>Any other mixed</b>	209	82	30	122	327	111	32	108				1,021	
	Row %	20.47%	8.03%	2.94%	11.95%	32.03%	10.87%	3.13%	10.58%				100%	
	<b>Asian</b>	181	x x	x x	103	57	22,277	65	661				23,344	
	Row %	0.78%	x	x	0.44%	0.24%	95.43%	0.28%	2.83%				100%	
	<b>Black</b>	97	119	41	x x	70	86	6,133	78				6,624	
	Row %	1.46%	1.80%	0.62%	x	1.06%	1.30%	92.59%	1.18%				100%	
	<b>Other</b>	75	x x	x x	37	43	841	x x	318				1,314	
	Row %	5.71%	x	x	2.82%	3.27%	64.00%	x	24.20%				100%	
	<b>Total</b>	367,353	1,929	485	1,414	1,133	23,771	6,448	1,871				404,404	

Source: ONS Longitudinal Study. In order to minimise the risk of disclosure of personal information, all counts of fewer than ten people are represented by an 'x', and these counts are excluded from the totals of the tables in which they are found.