Abstract: Divergent gender role attitudes among ethnic groups in Britain are thought to contribute to ethnic disparities in many socioeconomic domains. Using nationally representative data (2010-2011), we investigate how ethnic minority gender role attitudes vary across generations and with neighborhood ethnic composition. The results show that while Pakistanis, Bangladeshis, Indians, and Black Africans have more traditional attitudes than Black Caribbeans, the attitudes of the former groups are more traditional in the first than the second generation. We also find that the gender role attitudes of Pakistanis, Bangladeshis, and Indians become more traditional as the local share of co-ethnic neighbors increases or the share of White British residents decreases. Importantly, these patterns are more pronounced for second-generation Pakistanis and Bangladeshis, whose gender role attitudes are more sensitive to variations in neighborhood ethnic composition than are those of the first generation. Taken together, these findings indicate that migration researchers must conceptualize and study how immigrants' cultural values are heterogeneous, fluid, and dynamic characteristics that can vary spatially across host societies.

Exploring ethnic and generational differences in gender role attitudes among immigrant populations in Britain: The role of neighborhood ethnic composition
Introduction

High levels of immigration, fears of ideological extremism, and social disturbances in English cities in 2001 and 2011 have sparked renewed public concern about ethnic minority immigrants’ integration in Britain (Casey Review 2016; Finney and Simpson 2009). In recent years, some politicians and commentators have argued that late-twentieth-century multiculturalist policies celebrating cultural diversity have inadvertently exacerbated ethnic division, disparity, and conflict (Cameron 2011; Finney and Simpson 2009 for a critical review). In response, policy discourse has increasingly stressed the need to actively construct community cohesion and a shared national identity based around common ‘British values’ (Cameron 2011; Jivraj and Simpson 2015). The cultural values and residential patterns of ethnic minority immigrant populations have thus become politicized subjects that are thought to be intertwined in ways which could impede social integration and perpetuate ethnic inequalities (Finney and Simpson 2009).

The 2016 Casey Review into social integration in Britain suggested that ethnic inequalities in some minority immigrant communities could be partly attributed to differences in gender role attitudes, which can be defined as generalized norms and expectations concerning the appropriate social roles and responsibilities of men and women (Berridge et al. 2009). Research shows that in Britain, gender role attitudes concerning the gendered division of paid work and domestic labor typically vary with ethnicity. South Asian immigrants (defined as Pakistanis, Bangladeshis, and Indians) have been found to exhibit more traditional gender role attitudes - characterized by a clear household division of labor between a male breadwinner and female homemaker - than the native White British population and other minority immigrant groups (Aston et al. 2007; Dale et al. 2008). By contrast, Black Caribbean immigrants tend to have highly egalitarian gender role attitudes in terms of the division of responsibility for acquiring income and doing housework (Peach
2005; Heath et al. 2013). As attitudes help shape behavior, ethnic differences in attitudes toward the household division of labor could lead to gendered ethnic disparities in multiple life-course domains such as investments in human capital, labor-market participation, and occupational choices (Dale et al. 2008; Kan and Laurie 2016). Analyzing immigrants’ cultural values could therefore help us understand the origins of social inequalities in Western societies.

Previous research has often attributed ethnic minority immigrants’ distinctive gender role attitudes to factors associated with their historic origin country or immigration experience (Dale et al. 2008; Kan and Laurie 2016). Such factors include inherited cultural and religious traditions vis-à-vis gender roles; migrants’ reasons for leaving their origin country and choosing a particular destination; the level of human capital possessed by immigrants; and the distribution of job opportunities upon their arrival in the host society (Dale et al. 2008; Heath et al. 2013; Maliepaard and Alba 2016). However, another stream of research suggests that post-migration factors such as the ethnic composition of host-society neighborhoods may also influence whether and how minority immigrants’ gender role attitudes change over time. For example, ethnic residential concentration is often thought to help maintain distinctive cultural identities, practices, and traditions by facilitating more intense patterns of co-ethnic interaction (Galster 2012; van Ham et al. 2013). Similarly, contact theories suggest that ethnic minority immigrants living in areas with high density of White British residents may have more opportunities for inter-ethnic interactions with the native majority, leading ultimately to adoption of more mainstream cultural values (Zuccotti 2015). Over time, these patterns could be reinforced by selective residential choices whereby minority immigrants who have acquired particular cultural orientations seek to live in neighborhoods that reflect their attitudes and values. Despite much research exploring neighborhoods’ importance in shaping disparities in employment outcomes, life satisfaction, and trust (Knies et al. 2016;
Putnam 2007; Xie and Gough 2011), very little is known about whether neighborhood composition might also be relevant for gender role attitudes. Thus, this article’s first aim is to investigate how ethnic patterns of immigrants’ gender role attitudes vary with neighborhood ethnic composition.

Many neighborhoods studies focus on aggregate patterns, ignoring the fact that neighborhoods could play different roles in the lives of specific subgroups (Small and Feldman 2012). For instance, we might expect that any associations between neighborhood composition and the gender role attitudes of ethnic minority immigrants will vary by immigrant generation. As first-generation immigrants were socialized in their origin countries, they probably have relatively stable and strong affiliations to their home-country cultural values. Thus, the host-country neighborhood where they live as adults may have limited relevance for their gender role attitudes (Peach 2005). By contrast, localized processes of early-life socialization and schooling mean that second-generation immigrants’ cultural values often alternate between and hybridize the values of the host and origin society (Health et al. 2013). This could mean that second-generation immigrants’ gender role attitudes are more sensitive to the host-country neighborhoods where they were socialized and subsequently live. This study’s second aim is therefore to test whether the links between neighborhood ethnic composition and ethnic minority immigrants’ gender role attitudes vary by migration generation.

The rest of the article proceeds as follows. We begin by reviewing existing evidence on ethnic differences in gender role attitudes in Britain. The article then considers how ethnicity and the ethnic composition of neighborhoods may be linked to gender role attitudes, paying particular attention to the importance of migration generation. Next, we introduce the data and analytic strategy, before reporting and discussing the results. The study concludes by reflecting on the implications of its findings for international migration research and policy-
Theoretical background

Ethnicity and gender role attitudes

A key component of gender role attitudes is perceptions concerning the household division of labor (i.e., the relative responsibility that men and women have for working for wages and doing domestic housework) (Kan and Laurie 2016). Immigrants from different countries are often thought to have divergent gender role attitudes shaped by their distinct home-country cultural traditions and subsequent migration experiences (Dale et al. 2008; Maliepaard and Alba 2016). For example, in Britain, Black Caribbeans exhibit the most egalitarian (or least traditional) gender role attitudes, followed by White British, Black Africans, and Indians; in contrast, Pakistanis and Bangladeshis tend to have the most traditional attitudes (Berthoud 2005; Dale et al. 2008).

Research shows that Black Caribbeans’ gender role attitudes not only lead to a more egalitarian gendered division of housework and care duties (Kan and Laurie 2016) but are also associated with lower marriage rates (39% among Black Caribbean as compared with 60% among White British) and a high incidence of lone parenthood among Black Caribbean women (about 50% as opposed to 20% of White British) (Berthoud 2005; Dale and Ahmed 2010; Platt 2010). Berthoud (2005) suggests that the distinctive nature of Black Caribbean gender role attitudes may be partly the result of inherited egalitarian outlooks forged during historic experiences of West Indian slavery, when husbands and wives were usually sent to different plantations and assigned similar workloads. Black Caribbeans initially came to Britain to fill post-war labor shortages during a period of steady economic growth in the 1950s and 1960s (Heath et al. 2013). This long tradition of settlement means that Black Caribbeans are now a well-established and multigenerational group with better English
language skills than many other minority populations (Heath et al. 2013). Thus period effects, colonial history, and a long tradition of immigration to Britain might combine to explain why Black Caribbeans now have a more favorable labor-market position and more egalitarian gender role attitudes than most other minority groups.

In contrast, Pakistanis and Bangladeshis tend to have more traditional gender role attitudes often thought to be rooted in a more patriarchal home-country culture and widespread adherence to relatively conservative strands of Islam (Heath et al. 2013). In this cultural system, men tend to dominate gender relations and act as family breadwinners, leaving women to take care of household tasks, child rearing, and care duties (Aston et al. 2007; Dale and Ahmed 2010, Kan and Laurie 2016). Moreover, endogamy and arranged marriages within South Asian cultures (sometimes with partners from the home country) may mean that traditional gender role attitudes are strongly socialized within families and transmitted across generations (Dale and Ahmed 2010).

Pakistani and Bangladeshi migrants also have a very different immigration and settlement history from that of Black Caribbeans. Pakistanis and Bangladeshis began to migrate to Britain in the 1960s to fill jobs in declining industries such as textiles or unskilled construction in East London, Northern England’s industrial and mill towns, and parts of South-East England (Dale et al. 2008). An important feature of this immigration stream was that Pakistani and Bangladeshi men came and settled first, with their wives following later as dependents through family reunification policies (Heath et al. 2013). This gendered migration process means that Pakistani and Bangladeshi women often have lower levels of human capital and a weaker proficiency with English than both their male counterparts and women from other minority immigrant groups (Casey Review 2016). Most Pakistani and Bangladeshi women are also Muslims, making them vulnerable to discrimination and harassment. This may discourage travel and out-group interactions, potentially impeding
their labor-market participation and perpetuating traditional gender role attitudes (Aston et al. 2007; Dale and Ahmed 2010).

By contrast, Indians and Black Africans are more heterogeneous immigrant groups with diverse migration histories and cultural backgrounds (Heath et al. 2013). The 1947 partition of India displaced an initial flow of Indian migrants to Britain, and another wave recruited as doctors in the 1950s and 1960s shortly followed. More recent Indian migrants were former government officials and businessmen expelled from Uganda in the early 1970s (Dale et al. 2008; Zuccotti 2015). In Britain, Indian Hindus generally have a more favorable socioeconomic status (SES) than Indian Sikhs, Indian Muslims, and other South Asian groups, although all three religious groupings have a relatively patriarchal and traditional system of gender relations (Heath et al. 2013). While waves of Black Africans have been migrating to Britain for higher education since the 1950s, more recent arrivals have often been refugees seeking political asylum (Heath et al. 2013). As many are affiliated with relatively conservative strands of Islam, at first glance we might expect Black Africans to have fairly traditional gender role attitudes. However, the higher education levels and more advantaged SES of both Black African and Indian populations could mean that their gender role attitudes are less traditional than those of their Pakistani and Bangladeshi peers (Khoudja and Platt 2018).

In sum, diverse ethnic/cultural traditions and migration histories mean that British immigrants generally have very heterogeneous gender role attitudes. On average Black Caribbeans have the most egalitarian attitudes of all minority immigrant groups; whereas Pakistanis, Bangladeshis, Indians and Black Africans (especially the former two groups) have more traditional attitudes.

**Neighborhoods and ethnic clustering**
The broad ethno-cultural and ‘immigration experience’ explanations of immigrants’ gender role attitudes sketched in the previous section tend to conceptualize attitudes as essentialist cultural traits, thereby overlooking patterns of variation across the destination context. Yet, a rich tradition of social research stretching back to the 1920s Chicago School suggests that there is likely to be a close association between host-country neighborhood experiences and immigrants’ cultural values (van Ham et al. 2013).

Some authors argue that ethnic residential clustering could have important influences on a wide range of immigrant and minority life-course outcomes (Galster 2012; Portes and Rumbaut 2006). Galster (2012), for example, lists several mechanisms that could explain how neighborhood ethnic composition may shape immigrants’ cultural values. In ethnically concentrated neighborhoods, ethnic minority immigrants may have fewer opportunities to interact with individuals from the majority population. Processes of co-ethnic peer group socialization and role model effects mean that these more restricted co-ethnic social circles could facilitate the socialization of common values that accord more closely with those of the home country (Alba and Nee 2003; Portes and Rumbaut 2006). These more restricted patterns of social interaction may be reinforced by a denser concentration of specialist religious centers, shops, services, and institutions in ethnically clustered areas (Zuccotti 2015). Moreover, distinctive norms within cohesive ethnic enclaves could exert social control over behavior in ways that may deviate from the majority society’s expectations (Alba and Nee 2003). By contrast, living in areas with a higher density of the native majority could facilitate inter-ethnic interactions and help minority immigrants acquire more mainstream cultural values (Galster 2012). Taken together, these mechanisms suggest that neighborhood ethnic composition could significantly influence minority immigrants’ gender role attitudes.

However, there are two reasons to question whether neighborhood effects are causally producing spatial variations in ethnic minority immigrants’ gender role attitudes across.
British neighborhoods. First, poorly understood patterns of selective residential mobility whereby minority immigrants seek to live alongside co-ethnic neighbors with ‘matching’ cultural values could create or amplify spatial variations in gender role attitudes. While it is beyond this article’s scope to assess whether associations between neighborhood ethnic composition and minority immigrants’ gender role attitudes are due to ‘causal’ neighborhood effects or processes of neighborhood selection, exploring spatial variations in ethnic minority gender role attitudes can nevertheless help us understand the geography of integration processes and also target policies to tackle gendered inequalities.

A second stream of research argues that with the rise of social media and communications technology, people’s social interaction and socialization processes may not be limited to a certain area, and their cultural values are therefore becoming less dependent on the social opportunities and constraints of the geographical spaces in which they live (Drever 2004; Zelinsky and Lee 1998). In this view, ethnic minority immigrants’ gender role attitudes may not depend on the ethnic composition of neighborhoods where they live. In light of these uncertainties, it is necessary to re-examine whether neighborhood ethnic composition is associated with ethnic gender role attitudes while controlling for other factors associated with gender role attitudes and neighborhood selection.

Due to the different cultural traditions and migration experiences of British immigrant populations, we expect that the links between neighborhood ethnic composition and gender role attitudes will vary across ethnic minority groups. This expectation leads to two formal hypotheses. For Pakistanis, Bangladeshis, Indians, and Black Africans, who historically have had more traditional gender role attitudes than White British natives, we hypothesize that co-ethnic clustering is positively associated with more traditional attitudes, whereas living in White British areas is negatively associated with more traditional attitudes (Hypothesis 1a). In addition, we expect that these positive associations between ethnic clustering and
traditional gender role attitudes may be particularly strong for Pakistanis and Bangladeshis because both groups have especially strong attachments to their home-country cultural values and exhibit more segregated residential patterns than other groups (Dale and Ahmed 2010; Heath et al. 2013). This means that both groups may be not only more likely to cluster but also more exposed to intense co-ethnic interactions and peer group socialization in ethnic enclaves. In contrast, for Black Caribbeans, whose cultural traditions entail more egalitarian gender role attitudes than White British natives, we hypothesize that the share of co-ethnic neighbors is negatively associated with more traditional attitudes, while exposure to White British neighbors is positively related to more traditional attitudes (*Hypothesis 1b*).

**Generational differences**

One limitation of much neighborhood research and policy-making is a tendency to assume homogeneous neighborhood effects that do not vary across space or population subgroups (Small and Feldman 2012). This assumption could be problematic, as different socialization processes and varying degrees of adherence to home-country cultural values may mean that the neighborhood patterning of minority immigrants’ gender role attitudes varies with migration generation.

There are two reasons why we expect that the gender role attitudes of first-generation minority immigrants are more uniform and less likely to be related to their neighborhoods’ ethnic composition than will be the case for second-generation minority immigrants. First, stronger affiliation to inherited cultural values among first-generation immigrants could make it less likely that their values are shaped by the external neighborhood social environment (Dale et al. 2010; Heath et al. 2013). By contrast, second-generation immigrants who grew up in the host-country might be jointly influenced by the cultural values of the mainstream society as well as those of their parents and families (Dale et al. 2008; Platt 2010). Thus,
second-generation immigrants may have a weaker affiliation to home country cultural identities than first generations, and their cultural values could tend to alternate between and hybridize both types of values. Furthermore, recent research shows that second-generation immigrants tend to have more contact and interactions with the native majority, as well as better proficiency with English and a more advantaged labor-market status (Finney and Simpson 2009; Heath et al. 2013). These characteristics are likely to further decrease their affiliation to home-country culture and identities (Dustmann and Fabbri 2003; Edin et al. 2003). This cultural uncertainty means that the gender role attitudes of second-generation immigrants may be more malleable and sensitive to neighborhood ethnic composition and thus the socialization processes that can occur in local areas.

Second, neighborhoods may play an especially important role in the cultural socialization of children, who often acquire a particular cultural outlook and set of values from early-life interactions with peers and neighbors (Peach 2005). As first-generation immigrants came to Britain after primary socialization in their origin countries, we might expect that their home-country cultural values are less likely to be affected by the host-country neighborhoods in which they live as adults. This could be especially the case for first-generation South Asians (Dale et al. 2008), who, as some scholars suggest, may not necessarily have the inclination or opportunity to interact with other groups and acquire new cultural values, even if they live in ethnically mixed areas (Carol 2014; Peach 2005). In contrast, the cultural values of second-generation immigrants are probably more sensitive to the host-country neighborhoods where they grew up and subsequently live.

Overall, we expect that the associations between neighborhood ethnic composition and gender role attitudes predicted by the first hypotheses are stronger for second-generation immigrants than for their first-generation counterparts. For the three South Asian groups and Black Africans, we hypothesize that the positive association between the neighborhood share
of co-ethnics and more traditional gender role attitudes, as well as the negative association between the share of White British and more traditional attitudes, are both significantly stronger for second-generation immigrants than for the first generation (Hypothesis 2a). For Black Caribbeans, we expect that the negative association between share of co-ethnics and more traditional gender role attitudes, as well as the positive association between the share of White British neighbors and more traditional attitudes, are significantly stronger for the second than the first generation (Hypothesis 2b).

Methods

Data and sample

The survey data used in this study come from the second wave (2010-2011) of the United Kingdom Household Longitudinal Study (UKHLS). In this wave an adult self-completion questionnaire asked respondents about their gender role attitudes. The UKHLS’s second wave was conducted at a similar time to the 2011 Census, which provides the most comprehensive data on the composition of British neighborhoods.

UKHLS comprises a stratified and clustered General Population Sample (GPS) of around 40,000 households and a smaller Ethnic Minority Boost Sample (EMBS). The EMBS aimed to survey at least 1,000 respondents from five major ethnic minority groups: Indian, Pakistani, Bangladeshi, Black Caribbean, and Black African (Knies 2016). The interview response rates in wave two were 61% and 46% for the GPS and EMB samples, respectively. Among interviewed respondents, 89% of the GPS and 72% of the EMBS completed the adult self-completion questionnaire (Lynn et al. 2012). Cross-sectional weights provided by the survey team were used to adjust for unequal non-response and selection probabilities.

To construct the analytical sample, we excluded respondents from Scotland, Wales, and Northern Ireland because these countries have different measures of neighborhood SES and
smaller proportions of ethnic minority immigrants than England. As this article focuses on ethnic minority immigrants’ gender role attitudes, we excluded White British respondents from the sample for the regression analysis, although descriptive statistics for White British are still provided to facilitate cross-ethnic comparison of socio-demographic characteristics. We also restricted the sample to respondents aged 18-65 who are potentially active in the labor force and thus involved in making trade-offs between paid work and domestic labor. Minority groups other than those sampled in EMBS were discarded due to very small sample sizes. After dropping a small number of observations with missing data (5%), the final sample contained 3,806 Pakistani, Bangladeshi, Indian, Black African, and Black Caribbean respondents aged 18-65 and living in England.

Measures

Ethnicity and gender role attitudes

The five ethnic minority immigrant groups are distinguished based on ethnic self-identification and disaggregated into first- (born overseas) and second-generations (born in or arrived in the UK before the age of seven) (Heath et al. 2013). Gender role attitudes are measured by responses to three self-completion questions: ‘a pre-school child is likely to suffer if his or her mother works’; ‘all in all, family life suffers when the woman has a full time job’; and ‘a husband’s job is to earn money; a wife’s job is to look after the home and family.’ While these questions primarily focus on whether women should work and thus may not reflect the sum total of gender role attitudes, the trade-off between paid work and household care is a core aspect of gender role attitudes with major implications for gender inequalities (Kan and Laurie 2016).

For each question respondents were asked to rate the item on a 5-point scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). Principal component factor analysis was
used to extract one factor from these three variables. This factor explained 71.7% of the total variance with eigenvalue > 1 and $\alpha = 0.80$. Further analysis shows that the Cronbach’s Alpha of gender role attitudes is not significantly different between ethnic (0.78-0.81, $F = 1.20$, $p = 0.41$) and generational groups (0.78-0.81, $F = 0.64$, $p = 0.45$). To facilitate interpretation, the factor score was standardized to range from 0 to 10, where a higher score refers to more traditional gender role attitudes. For more details see Table A1 in the online supplementary material.

*Neighborhood variables*

Neighborhoods are approximated by Lower Layer Super Output Areas (LSOAs), with respondents placed into LSOAs using geo-codes supplied with the UKHLS. LSOAs are an official census geography designed for consistent reporting of local statistics. There are 32,844 LSOAs in England, each with 1,000-3,000 residents (the average is roughly 1,600). Two types of neighborhood characteristics were examined in this study: LSOA ethnic composition and LSOA neighborhood SES. Our main measures of ethnic composition are the LSOA percentage share of White British and of co-ethnics, both calculated using data from the 2011 Census (ONS 2016). Co-ethnics are defined separately for each ethnic group, except for Pakistanis and Bangladeshis, where the share of co-ethnics refers to the combined share of both groups because Pakistanis and Bangladeshis had a common nationality until 1971. Both groups also have shared cultural traits, migration backgrounds, religious adherence, residential patterns, and labor-market status in Britain (Dale et al. 2010).

Each LSOA variable captures an important way in which neighborhood ethnic composition could relate to gender role attitudes. The LSOA White British share is a proxy measure of exposure to majority gender attitudes. In contrast, the share of co-ethnics measures local ethnic clustering, which could help preserve ethnic differences in gender
attitudes through the mechanisms outlined in the theoretical background section. As exposure to other ethnic minority immigrants and diversity more generally may disrupt peer group effects and influence gender role attitudes in unclear ways, we controlled for the ‘minority diversity’ of LSOAs. This diversity measure was operationalized using an adapted version of the Herfindahl-Hirschman Index (for a detailed discussion see the section on ‘operationalization of minority diversity’ in the online supplementary material). To control for neighborhood SES, we use a continuous indicator of LSOA deprivation decile from the 2015 edition of the English Index of Multiple Deprivation (DCLG 2015). A lower rank score indicates greater neighborhood disadvantage in terms of SES.

Control variables
A range of individual and household variables are used as additional controls: age (plus a quadratic term), gender, and partnership coded as a dummy to indicate whether individuals have a partner. A dummy variable captures whether respondents have co-resident dependent children under 10 years old, as younger children are more likely to influence reported gender role attitudes than older offspring (Dale et al. 2008). Education is coded into three categories: ‘degree/other higher,’ ‘A-level/GCSE/other qualification,’ and ‘no qualification.’ Employment status has four categories: ‘full-time student,’ ‘inactive,’ ‘unemployed,’ and ‘employed.’ Duration of stay (measured as logged years at the current address) and whether respondents prefer to move are also controlled as these factors could configure exposure to neighborhoods and partly capture processes of neighborhood selection. Logged equivalized household income, which takes into account the differing consumption needs of different household types, is controlled, as it is an important component of SES.

Analytic strategy
Although the data are hierarchically structured (i.e. individuals are nested within LSOAs), we use appropriately weighted single-level linear regression models due to: (1) the low number of respondents per LSOA (mean = 2.3); (2) the need to use weights to adjust for non-response rates and sample design; and (3) the fact that the UKHLS sample is not nested within neighborhood levels (see Knies 2016; Knies et al. 2016). We begin by fitting linear regression models to compare gender role attitudes across ethnic minority groups while controlling for individual and household characteristics. We then add various neighborhood characteristics to the model. To test the first hypotheses, we interacted ethnicity with each of the two ethnic compositional indicators. While standard interaction models often consist of main effects and interaction effects, this study estimates slope coefficients for each minority group separately by omitting the main effect of ethnic composition. This can be justified not only because the interaction effects are actually the differences in coefficients between the reference and other groups (Jaccard and Turrisi, 2003: 6) but also because in this study our first hypotheses made differentiated predictions for South Asians/Black Africans and Black Caribbeans. Wald tests are then used to explore whether the association’s strength differs within the South Asian/Black African group. Doing so can show the coefficient for each minority group in a parsimonious way without changing the model itself. To test the second set of hypotheses, we interacted minority generation with neighborhood ethnic compositional indicators for each ethnic minority group. This time, we included the main effect of ethnic composition and use first generation as the reference group.

Self-selection effects

Selective mobility is a significant challenge for all neighborhood research (van Ham et al. 2013). In this study, it is possible that a desire to live among like-minded peers leads some ethnic minority immigrants to either cluster or disperse to places where their neighbors have
similar attitudes. To try to address this, we controlled for moving preferences, duration of stay, and a wide range of individual and household variables. Previous research argues that controlling for these factors could configure exposure to neighborhoods and take into account the processes of neighborhood choice, which may to some extent attenuate the risk of selection biases (Knies et al. 2016). Nevertheless, as this study is a cross-sectional analysis, the results should be interpreted as patterns of association, not as causal effects. We return to this issue later in the article.

Results

Descriptive statistics

Table 1 presents descriptive statistics disaggregated by ethnicity. While Black Caribbeans report less traditional gender role attitudes than White British natives, Pakistanis, Bangladeshis, Indians, and Black Africans have more traditional attitudes than White Britons. Overall, Pakistanis and Bangladeshis have the most traditional gender role attitudes of all minority groups, followed by Indians and then Black Africans. These results are consistent with previous research (Dale et al. 2010).

Insert Table 1 Here

Table 1 also shows that all ethnic minority immigrants typically live in neighborhoods with lower SES than the White British majority. On average, Pakistanis and Bangladeshis live in neighborhoods with lower SES than Indians, Black Africans, and Black Caribbeans. Pakistanis and Bangladeshis also tend to live in areas with a larger share of co-ethnics and smaller share of White British natives than Indians and particularly Black Caribbeans or Black Africans. The latter result probably reflects the smaller share of the population that
identify as Black. Moreover, ethnic minority groups living with a smaller share of White British neighbors and larger share of co-ethnic neighbors tend to have more traditional gender role attitudes than groups that are more residentially integrated, implying an association between neighborhood ethnic composition and gender role attitudes. Finally, Table 1 shows clear compositional differences between different minority groups across most control variables.

**Regression analysis**

*Ethnicity, neighborhoods and gender role attitudes*

Table 2 reports a series of weighted linear regression models comparing gender role attitudes across minority immigrant populations. Model 1 shows that after controlling for compositional factors, Pakistanis, Bangladeshis, Indians, and Black Africans have significantly more traditional gender role attitudes than Black Caribbeans. The difference is largest for Pakistanis and Bangladeshis, suggesting that they have the most traditional attitudes.

Control variables show that individuals who are male, older, have dependent children, have lower education levels, are economically inactive, have lower incomes, and longer durations of stay tend to have more traditional gender role attitudes than their counterparts. As expected, second-generation immigrants also on average have significantly less traditional attitudes than first-generation immigrants. Further analysis repeating Model 1 separately for each minority group shows that these generational differences are statistically significant at the 5% level for South Asians and Black Africans but not for Black Caribbeans (for more details see Table A2 in the online supplementary material). This is probably because many first-generation Black Caribbean immigrants have been in Britain for a long time and are already well integrated into host-society culture (Heath et al. 2013).
Furthermore, previous research indicates that Black Caribbeans have a relatively egalitarian culture (Berthoud 2005), so there is less scope for generational divergence in gender attitudes.

Insert Table 2 Here

Neighborhood characteristics are then added to the regression models. To avoid multicollinearity, the neighborhood share of co-ethnics and of White British are included separately in Model 2 and Model 3. Overall, Models 2 and 3 show that ethnic minority immigrants living in neighborhoods with higher SES and a larger share of co-ethnics or a smaller share of White British residents have more traditional gender role attitudes. Compared to Model 1, the R squared in Models 2 and 3 increases by 2.3-2.5% points (or around 16%), suggesting that neighborhood characteristics are independently associated with ethnic minority immigrants’ gender role attitudes, although individual and household variables are much more potent predictors.

Models 4 and 5 test the first hypotheses by adding interaction terms between ethnicity and two neighborhood ethnic composition indicators: LSOA share of co-ethnics (Model 4) and LSOA share of White British (Model 5). It is important to note that we omitted the main effects of neighborhood ethnic composition to estimate the associations between neighborhood ethnic composition and gender role attitudes for each ethnic minority group separately (Jaccard and Turrisi, 2003; see Methods section for discussion).

In Model 4 interactions between ethnicity and share of co-ethnics are positive and significant for the three South Asian groups (especially Bangladeshis). This suggests that South Asians tend to report more (less) traditional gender role attitudes as the share of co-ethnics increases (decreases). Specifically, with a one-unit increase of neighborhood co-
ethnic share, their traditional gender role attitudes increase by 1.19 (Pakistanis), 1.72 (Bangladeshis), and 1.15 (Indians). Further Wald tests show that the associations are not significantly different across the three South Asian groups ($p>0.3$ for all comparisons). For Black Africans, while the interaction term is positive, it is not statistically significant.

Model 5 shows that interactions between ethnicity and the share of White British residents are negative and significant for the three South Asian groups and for Black Africans. This suggests that these groups tend to report significantly less (more) traditional attitudes as the neighborhood share of White British increases (decreases). Overall, these results show general support to Hypothesis 1a vis-à-vis South Asians and to a lesser extent Black Africans. This is not the case for Black Caribbeans (Hypothesis 1b), as the interaction terms in Models 4 and 5 are very small and not significant. This is partly because Black Caribbeans are well integrated in the host society and their cultural values are very similar to those of the White British (Heath et al. 2013).

Further analysis (Table A3 in the online supplementary material) repeated Models 4 and 5 separately for men and women to test for gendered patterns. Although the overall pattern remains similar, the associations between neighborhood ethnic composition and gender role attitudes are more pronounced for Pakistani and Bangladeshi women than for men. We also tested whether exposure to other ethnic minority immigrants is associated with ethnic gender role attitudes by interacting minority diversity (measured by Herfindahl-Hirschman Index) with ethnicity. However, we do not find any significant associations (for more details see Table A4 in the online supplementary material).

**Generational differences**

To test the second hypotheses, Table 3 presents a series of regression models that interact generation with each of the two ethnic compositional indicators for each minority group in
The interaction parameters of particular interest in each column are noted in bold.

Insert Table 3 Here

In line with Hypothesis 2a, the models in Table 3 show positive and significant interactions between generation and the share of co-ethnics for Pakistanis and Bangladeshis. This means that the gender role attitudes of second-generation Pakistanis and Bangladeshis are more sensitive to variation in the local share of co-ethnics than the gender role attitudes of their first-generation counterparts. These patterns can be seen more clearly in Figure 1, which uses the estimates in Table 3 to predict gender role attitudes for each ethnic and generational group. As the figure shows, first-generation Pakistanis and Bangladeshis (with very flat slopes) have similar gender role attitudes across neighborhoods regardless of their co-ethnic concentration. In contrast, the attitudes of second-generation Pakistanis and Bangladeshis vary significantly with neighborhood ethnic composition (exhibited in their much steeper slopes). Specifically, Figure 1 shows that second-generation Pakistanis and Bangladeshis have significantly less traditional attitudes than their first-generation counterparts in neighborhoods where the proportion of co-ethnic neighbors is below 0.4. However, these generational differences become insignificant in neighborhoods with a higher proportion of co-ethnic neighbors.

Insert Figure 1 Here

Table 3 also shows negative and significant interactions between generation and the local share of White British for Pakistanis and Bangladeshis. This finding suggests that second-generation Pakistanis and Bangladeshis tend to report significantly less (more) traditional
gender role attitudes as the local share of White British increases (decreases). This is clear in Figure 2, which shows that the gender role attitudes of second-generation Pakistanis and Bangladeshis are in general much more sensitive and responsive to the neighborhood ethnic composition than are those of their first-generation counterparts. In ethnically mixed areas (where the share of White British is at least 0.4), second-generation Pakistanis and Bangladeshis have significantly less traditional attitudes than does the first generation. However, both first- and second-generation Pakistanis and Bangladeshis have similar, highly traditional gender role attitudes in areas with a low share of White Britons, providing support for Hypothesis 2a. Further analysis shows that these patterns are more pronounced for Pakistani and Bangladeshi women (for more details, see Table A5 in the online supplementary material).

Insert Figure 2 Here

Table 3 shows that there are no significant interactions between generation and neighborhood ethnic composition for Indians or Black Africans. In fact, the coefficients’ direction hints that the gender role attitudes of first-generation Indians and Black Africans are actually more responsive to the local share of co-ethnics and White British than are the gender role attitudes of the second generation (see also Figure 1). These patterns contradict Hypothesis 2a. Moreover, we do not find any significant interaction terms for Black Caribbeans. Indeed, overall neighborhood ethnic composition interactions for Black Caribbeans, Black Africans, and Indians are relatively small and come with large standard errors and high p-values. For Black groups, this is partly because the majority of Black Caribbean (95%) and Black African (86%) respondents live in neighborhoods with a small share of co-ethnics (under 20%). Hence we find no support for Hypothesis 2b. Finally, the
model R squared values are much greater for Pakistanis and Bangladeshis than for the other three minority groups, suggesting that socio-demographic and neighborhood characteristics can explain a larger proportion of variance in gender role attitudes among these immigrant populations.

**Discussion and Conclusions**

Recent British debates about ethnic minority immigrants’ integration have raised concerns about the prevalence of traditional and sometimes patriarchal gender attitudes in some minority communities (Casey Review 2016). These attitudes have been posited as one reason for the persistence of gendered ethnic disparities in a number of socioeconomic domains (Dale et al. 2008; Kan and Laurie 2016). Although previous research suggests that migration background and inherited cultural traditions underlie ethnic attitudinal differences (Dale et al. 2008), little is known about how these aggregate patterns may vary across host-country neighborhoods and with minority generation. In consequence, this article aimed to explore how neighborhood ethnic composition is linked to the gender role attitudes of different groups of first- and second-generation minority immigrants.

The first set of hypotheses proposed that there is a significant relationship between neighborhood ethnic composition and the gender role attitudes of several minority groups. As hypothesized, our results show that high levels of exposure to co-ethnic neighbors is associated with more traditional gender role attitudes among South Asians (especially Pakistanis and Bangladeshis). This indicates that either causal neighborhood effects and/or selective patterns of residential mobility cause South Asians living in ethnic clusters to report more traditional gender role attitudes than their peers in ethnically mixed neighborhoods (Zuccotti 2015). However, there is no significant variation in Black Africans’ gender role attitudes across neighborhoods with different levels of co-ethnic clustering. This is possibly
because lower levels of Black African clustering inhibit strong within-group neighborhood socialization effects (Heath et al. 2013).

As expected, exposure to the relatively egalitarian values of White British neighbors is associated with less traditional attitudes among South Asians and Black Africans. This could suggest that for these groups greater levels of interaction with the majority population reduce the persistence of imported cultural values, whilst residential separation from White British natives has the opposite effect (Carol 2014). Alternatively, this result could mean that members of these minority groups who have more egalitarian preferences disproportionately opt to live in more White British locales. Although we cannot clearly distinguish whether neighborhood effects and/or residential selection is producing these patterns, the more traditional attitudes of South Asians living in ethnically clustered neighborhoods suggests that interventions to tackle gendered ethnic inequalities may need to be targeted to these areas. Interestingly, the associations between gender role attitudes and neighborhood ethnic composition are generally stronger for Pakistani and Bangladeshi women as compared with men. This might be because Pakistani and Bangladeshi women often have lower levels of employment than their male peers and hence spend more time in their local area where they may be exposed to relatively traditional gender role norms (Casey Review 2016).

In contrast, Black Caribbeans’ gender role attitudes are highly egalitarian and very different from all other minority groups. Indeed, the associations between Black Caribbean gender role attitudes and neighborhood ethnic composition are very weak and generally statistically insignificant. This could be because Black Caribbeans are a highly integrated and well-established ethnic group that has similar cultural values to those of the White British majority (Heath et al. 2013; Peach 2005). Further qualitative research into Black Caribbean gender attitudes is required to unpack whether these attitudes have been produced by their long history of settlement in Britain or are a result of imported West Indian cultural
Our second hypotheses proposed that the associations between gender role attitudes and neighborhood ethnic composition are significantly stronger for second-generation immigrants than for their first-generation counterparts. This hypothesis is supported primarily for Pakistanis and Bangladeshis. While first-generation Pakistanis and Bangladeshis have similar gender role attitudes across different types of neighborhoods, the attitudes of their second-generation counterparts are much more sensitive to variations in neighborhood ethnic composition. This could be because first-generation immigrants have stronger and more consistent adherence to their traditional home-country values, whereas second-generation immigrants’ cultural values are formed in situ through the combined influence of parents and host-country social networks (Peach 2005). Alternatively, selective residential mobility to live alongside neighbors with a similar outlook may be particularly common for members of the second generation who have a less stable cultural orientation.

These results could help us understand processes of Pakistani and Bangladeshi integration across time. Although gender role attitudes are generally less traditional among members of the second generation, this generational divide in attitudes only occurs in places where Pakistanis and Bangladeshis are exposed to many neighbors from other ethnic groups. In ethnically clustered areas, both first- and second- generation Pakistanis and Bangladeshis have similar and highly traditional gender role attitudes (see Figures 1 and 2). This implies bifurcated attitudes among second-generation Pakistanis and Bangladeshis as those living in mixed areas express less traditional gender role attitudes, while those living in ethnic enclaves express more traditional attitudes. Interventions to boost gender and ethnic parity that seek to tackle entrenched traditional gender role attitudes may therefore need to focus not only on first-generation migrants but also on second-generation Pakistanis and Bangladeshis living in ethnically clustered areas.
For Indians, Black Africans, and Black Caribbeans, we find no significant generational differences in the associations between neighborhood ethnic composition and gender role attitudes. There are several possible reasons for this result. First, the second hypotheses assume that due to different socialization processes, first-generation immigrants have stronger and more stable affiliation to their home-country cultural values than do members of the second generation. This assumption may not be true, however, for the relatively heterogeneous population of Indians, Black Caribbeans and Black Africans in Britain. For example, many first-generation Indians and Black Africans may not have completed socialization in their home countries as they came to Britain specifically for higher education. Moreover, compared with South Asians, both first-generation Black Africans and Black Caribbeans have better English language skills, higher inter-ethnic marriage rates, and more dispersed residential patterns (Heath et al. 2013). These characteristics suggest that first-generation Black Africans and Black Caribbeans might be more integrated into the host society in social and cultural terms than many first-generation South Asians. These factors, taken together, may help explain why there are not clear generational differences in neighborhood effects for Black Africans, Black Caribbeans, or Indians.

Several limitations of this study provide worthy directions for future research. First, the broad ethnic classifications used in this article may conceal within-group heterogeneity in terms of religious affiliation and migration biographies. Future research using other datasets with larger samples of ethnic minority immigrants could further disaggregate each minority group and profitably explore more nuanced associations between their cultural values and neighborhood characteristics. Second, the measures of gender role attitudes used in this study primarily focus on whether women should do paid work. Further work using other measures of gender role attitudes is now needed. Third, due to limited space, this study focuses only on ethnic minority immigrants’ gender role attitudes. Future research could profitably explore
the implications of White immigration (for example, from the enlarged European Union) and increased ethnic diversity for White British and other White populations’ gender role attitudes. Finally, data limitations mean that this study did not use multilevel models to explore spatial heterogeneity in variable relationships. Relying on cross-sectional data also meant that this study could not conclusively disentangle the extent to which causal neighborhood effects and/or selective residential moves drive the observed patterns of association between neighborhood ethnic composition and ethnic minority gender role attitudes. Doing so will require using long periods of panel data and multilevel modeling to explore the spatial patterning of gender role attitudes and the long-term implications of growing up and living in different types of neighborhood for cultural values and socioeconomic trajectories.

These weaknesses should not, however, overshadow the study’s main finding that in Britain, immigrants’ gender role attitudes vary significantly along the intersecting axes of ethnic group, migration generation, and neighborhood. These results matter for both migration scholarship and public debates about immigration. For scholars, our findings indicate that conceptual models and empirical studies of immigrants’ cultural assimilation or integration over time need to take into account that these processes may unfold differently in different localities. Recognizing this geographical diversity, as well as the temporal dynamism of immigrants’ gender role attitudes, is important as public debates about immigration often present the static, simplified narrative that minority arrivals choose not to adhere to mainstream ‘British values’. Given that crude assumptions about immigration’s impact on Britain’s social fabric played a major role in the 2016 Brexit referendum, there is a pressing need for migration scholars to improve public knowledge about immigrants’ cultural values and the ways in which these change over time and vary across space.
References


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