Testing the Theory of Cultural Inertia: How Majority Members’ Perceptions of Culture Change Relate to Prejudice

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Keywords: acculturation, cultural change, cultural inertia, symbolic threat, intergroup relations
Abstract

This paper presents two studies which address an underdeveloped area within acculturation research: majority members’ perceptions of cultural change. Specifically, drawing on the theory of cultural inertia, we explored how majority members react to perceptions of recent majority culture and minority cultures change. A path model was hypothesised whereby British and English majority members’ perceptions that their British (Study 1, $N = 266$) and English (Study 2, $N = 292$) cultures are changing due to the presence of minority cultures was positively associated with symbolic threat, and through this with greater prejudice towards minorities living in the UK/England. However, participants’ perceptions that minority cultures are changing due to influence from the majority culture were negatively associated with symbolic threat, and through this with less prejudice towards minorities. These findings were supported across different operationalizations of prejudice (i.e., social distance and positive/negative affect) and even when controlling for another recently introduced concept of meta-perceptions – that is, majority members’ perceptions of whether minority members prefer majority members to maintain their culture and/or adopt to the minority cultures. Findings call for a greater focus on studying the intergroup consequences of majority members’ perceptions of cultural change.

Keywords: acculturation, cultural change, cultural inertia, symbolic threat, intergroup relations
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Mass immigration and accelerated globalisation has led to increased diversity in many Western societies. Such diversity of cultures has brought to the fore increasing debate on immigration, prejudice and especially the perceived impact of cultural diversity on the culture of the ethnic majority – that is, members of the culturally dominant group through higher status, demographic strengths, and/or institutional support relative to ethnic minority members in a shared society (Brown & Zagefka, 2011; Giles et al., 1977). In the USA and Europe, for example, support of the Great Replacement Theory is increasing, which describes the belief by white European majority members in Western countries to be systematically (politically and culturally) undermined by non-white and non-European immigrants (Rose, 2022). Such a perception fosters majority members’ prejudice and violent intentions against ethnic and religious minority groups (Obaidi et al., 2021). In the UK specifically, there is often debate in the media on qualifiers of Britishness and/or ‘Englishness’ (Hancock, 2021), with long lists of traits required of immigrants to be considered as accepted members of the larger society indicating a societal trend towards exclusivity (i.e., social markers of acceptance; Jassi & Safdar, 2021; Leong et al., 2020). Voting for ‘Brexit’ in the EU referendum in 2016 was also shown to be driven strongly by anti-immigration attitudes (Goodwin & Milazzo, 2017). Overall, a higher proportion of ethnic minorities born in the UK experience discrimination these days (Fernández-Reino, 2020).

Although the acculturation literature has provided fruitful insights into the mechanisms of cultural adoption and intergroup relations for ethnic minorities, a stronger focus on majority culture change is currently missing (Zagefka et al., 2022). Indeed, although general support for cultural diversity often relates to the existence of a multicultural policy within the respective country (Wike et al., 2016), it was recently found that how English
majority members’ themselves change towards minority cultures in the UK relates to their support or rejection of a multicultural ideology over time (i.e., personally held belief on how society/policies should manage cultural diversity; Lefringhausen et al., 2022).

Thus, this paper focuses on newly introduced concepts on intergroup relations by directly addressing perceptions of culture change within British society – that is, we consider insights from cultural inertia theory (Zárate et al., 2012, 2019) in combination with the theory of acculturation for majority members (Kunst et al., 2021; Lefringhausen et al., 2021) to identify new potential predictors of intergroup outcomes. Specifically, we explore the extent to which British (Study 1) and English (Study 2) majority members perceive that the cultures of the majority and minority groups are changing (recently, rather than ongoing) as a result of the presence of the other, and how these perceptions may shape perceptions of symbolic intergroup threat, and subsequent prejudice towards ethnic minorities. In doing so, we control for meta-perceptions as another new concept within the acculturation literature which has been found to predict prejudice (Moftizadeh et al., 2021a, 2021b; Zagefka et al., 2022): the extent to which majority members expect or assume that minority members want or expect the majority group to adopt minority cultures and/or maintain their majority culture.

**Acculturation of minority and majority group members**

When culturally distinct groups come into contact with one another, acculturation occurs (Redfield, 1936), and this is where groups might adopt aspects of each other’s cultures. At the individual or psychological level, acculturation can result in cultural behaviour, identity, attitudes, and value changes (Graves, 1967). Notably, for acculturation to occur, no consistent nor direct (e.g., face-to-face) intergroup contact is required (Ferguson, 2013). According to the classic acculturation framework devised by Berry (1997), two fundamental dimensions underlie the processes of culture change for minority members: the
desire for heritage culture maintenance, and the desire for intergroup contact, or in recent advancements of this framework, a desire for majority culture adoption (Bourhis et al., 1997).

But what about majority members’ cultural change due to contact with ethnic minority members? According to the classic definition of acculturation by Redfield et al. (1936), it is clear that some degree of mutual adaptation and/or culture change should be expected at a group level. However, due to their higher power or more dominant position, psychological cultural change of majority members was either rejected or ignored within the acculturation literature (Graves, 1967; Foster, 1960; Prilleltensky, 2008). However, due to greater ethnic diversity which has led to more multicultural societies, it is important to understand the ways in which members of the national majority group are also subject to culture change (Dandy, 2009; Zagefka et al., 2022).

To address this issue, some recent studies have explored how majority members acculturate towards various ethnic minority cultures (Kunst et al., 2021; Lefringhausen & Marshall, 2016). These studies have shown that majority members’ preferences for their own acculturation can fit a similar bi-dimensional framework as the one predominantly used to describe the acculturation process for ethnic minorities. Indeed, some majority members prefer to maintain their national culture, and also adopt the culture of immigrants in a shared societal context (i.e., integration strategy), and this has positive adaptation outcomes for majority members (Lefringhausen & Marshall, 2016; Lefringhausen et al., 2021). Similarly, results from qualitative work in Australia reported that some majority members express a willingness to learn about the cultures of specific ethnic minority groups (Dandy & Pe-Pua, 2013; Rauchelle & Dandy, 2015). Nevertheless, these majority members regarded their own acculturation towards minority members as an option (like a hobby) rather than a necessity; expecting mainly ethnic minority members to adopt the majority culture. This has consequences, as demonstrated by Sidler et al. (2022). Specifically, adolescents with strong
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and mild mutual integration profiles, where both immigrant and majority adolescents are expected to integrate, reported stronger psychological adjustment (i.e., self-esteem and self-determination) than adolescents ascribing lower responsibility to the majority group to culturally change.

Taken together, it is not only immigrants that may acculturate and change in response to majority members, but majority members too endorse acculturation strategies about how they themselves wish to adopt and/or maintain minorities’ cultures/their national culture in a shared society.

Preferences and perceptions of minority members’ cultural change

Majority members not only have preferences about how they personally should culturally change (or not), but also expectations/preferences on whether minority groups should culturally change. These preferences can also impact intergroup relations (Brown & Zagefka, 2011; Zagefka et al., 2022). Indeed, we know from the social identity perspective that groups are likely to behave in ways to preserve their best interests (Tajfel & Turner, 1979). Where groups perceive threat or discrimination to their collective identity, they are especially likely to react in ways to preserve their collective self-esteem, such as enhanced ingroup identification (Branscombe et al., 1999). Thus, within the acculturation literature, majority members are likely to hold acculturation preferences that they perceive to be best suited to serve the interests of their group.

For example, Bourhis et al. (1997; Bourhis, 2017) proposed to investigate the acculturation preferences of majority members of which acculturation strategies they might want ethnic minorities to choose. Four of the six acculturation strategy preferences are also based on the two underlying dimensions of acculturation as proposed by Berry (1997) for minority members: (a) integration, where there is a preference for minority members to maintain their heritage culture whilst also adopting the majority culture; (b) assimilation,
where there is a preference for minority members to adopt the majority culture but to reject their heritage culture; (c) segregation, where there is a preference for minority members to maintain their heritage culture but to not engage with/adopt the majority culture; and finally (d) exclusion, where there is a preference for minority members to neither engage in their heritage nor the majority culture. Conflicting acculturation preferences between majority and minority members regarding how minority members should acculturate gives rise to conflictual intergroup relations (e.g., Horenczyk et al., 2013).

However, rather than exploring majority members’ preferences for minority members’ acculturation, it is even more so the perception of the preferred acculturation strategy of the outgroup that predicts intergroup outcomes (Brown & Zagefka, 2011; Piontkowski et al., 2002). Indeed, past studies have shown that majority members often react negatively (e.g., less support for multiculturalism, negative affective reactions) when perceiving minority members to prefer to maintain their heritage culture and positively when perceiving minority members to prefer to adopt the majority culture (Tip et al., 2012; Van Acker & Vanbeselare, 2011; Van Oudenhoven & Eisses, 1998; Verkuyten & Thijs, 2002).

This tendency for majority members to react negatively when perceiving minority members to maintain their heritage culture and positively when they perceive minority members to adopt the majority cultures is often mediated by symbolic intergroup threat (López-Rodríguez et al., 2014; Tip et al., 2012). Other than social identity threat (i.e., threat towards the positive image of one’s social group through negative group stereotypes/stigmatization; Steele et al., 2002), symbolic threat represents a perception that the values, ideologies, and beliefs that a particular group holds are being compromised by another group (Stephan et al., 1998; Stephan et al., 2009). Typically, this perception of threat leads to prejudice towards this other group (Riek et al., 2006; Velasco González, 2008). More specifically, majority members may see any form of minority culture maintenance as a
symbolic threat to the status and way of life of the majority group, and therefore endorse expectations of minority members to assimilate to the majority culture as a way of alleviating such threat (Verkuyten, 2007).

Now, while majority members’ preferences and perceptions of minority members’ acculturation in relation to prejudice have been well researched over the past years, and more recently, majority members’ preferences regarding their own personal acculturation process towards minority cultures, less focus has been put onto how majority members perceive their own majority culture to actually change due to the presence of minority members. Yet, there are reasons to believe that the perception of cultural change of the own group is an influential driver of prejudice.

**Perceiving the own majority culture to change (Cultural inertia theory)**

As stressed in a recent review (Zagefka et al., 2022), little is known about the relationships between majority members’ perception of their group to be culturally changing and their intergroup relationships. Indeed, within the acculturation literature, measures of acculturation preferences typically tap into what participants want in terms of acculturation, either for themselves or the outgroup, and what participants perceive the respective outgroup wants. In contrast, within the literature on cultural inertia, the theoretical focus has been on whether it is perceived that culture change is already occurring (Zárate et al., 2012, 2019).

According to this theory, change, in and of itself, can produce intergroup tension, and thus, can contribute to intergroup prejudice. Specifically, cultural groups are generally resistant to cultural changes and prefer societal climates or intergroup ideologies that preserve the stability of their groups’ way of life and status. However, if group members perceive cultural change to be already in motion, this change will continue at a steady rate without resistance from the members of the changing group. Therefore, perceived recent
changes to one’s culture as a result of the presence of other cultural groups can represent a threat to the group and foster negative reactions, such as prejudice.

In particular, perceptions of culture change were manipulated in a series of experimental studies and in the conditions where majority members were led to believe they had to change culturally to accommodate a minority group (i.e., a future prospect of cultural change), they exhibited greater levels of prejudice (Zárate et al., 2012). This explains why some majority members prefer assimilationism as an intergroup ideology (i.e., rejection of minority groups’ heritage culture maintenance by the larger society/policies) as opposed to supporting multiculturalism in their society (i.e., acceptance of minority members’ cultural maintenance as well as social engagement and participation of all groups in larger society; Verkuyten, 2005, 2007), as assimilationism represents a climate in which the dominant majority culture is stable and the status quo is preserved.

To our knowledge, no studies have directly measured the degree to which majority members perceive that the culture of both majority and ethnic minority groups is actually already undergoing change due to the presence of the other group, and whether these perceptions are antecedents of prejudice. Instead, the above outlined acculturation-related concepts measured what people prefer or perceive the outgroup to prefer, but they did not focus on the outcomes of such choices for culture change which, however, can have strong intergroup effects as demonstrated by Zárate et al. (2012). Thus, the present study aimed to fill this research gap within the acculturation literature. Specifically, the theory of cultural inertia suggests that majority members are not in favour of prospective or recently induced culture change by minority groups, as this disrupts the stability and status-quo of the majority group. Thus, the perception of cultural change due to the presence of minority groups is likely associated with perceived symbolic threat, and in turn with more prejudice towards ethnic minority members (Hypothesis 1). The reverse should be true when majority members
perceive their culture to be changing ethnic minorities’ cultures, as this implies that the societal climate remains stable with ethnic minority members assimilating to the majority culture, relating to less perceived symbolic threat, and in turn less prejudice towards ethnic minority members (Hypothesis 2).

**Controlling for meta-perceptions**

Recent developments in acculturation research have also shifted the focus on majority members’ perception of minority members’ acculturation preferences for majority members (i.e., meta-perceptions; Moftizadeh et al., 2021a). For example, majority members may think/perceive that minority members prefer or expect the majority group to adopt minority cultures whilst rejecting the national culture. Indeed, this echoes principles used in right-wing conspiracy theories such as the Great Replacement Theory, where majority members perceive “welcoming immigration policies — particularly those impacting nonwhite immigrants — are part of a plot designed to undermine or ‘replace’ the political power and culture of white people living in Western countries” (National Immigration Forum, 2021, p. 1). In data from Scandinavia, such a ‘replacement’ perception was associated with majority members’ persecution of Muslims, violent intentions, and Islamophobia (Obaidi et al., 2021), mediated by symbolic threat.

Regarding meta-perceptions, Moftizadeh et al. (2021a) showed that when majority members perceive that the minority prefers majority members to adopt minority cultures, they are more likely to feel threatened (i.e., a combination of symbolic and realistic intergroup threat). This suggests that majority members tend to react in negative ways when they perceive that they are expected to acculturate to minority cultures. However, existing research on how majority members react to a perceived preference for them to assimilate by minority members remains limited. Yet on the basis of Moftizadeh et al. (2021b) findings, we can assume that meta-perceptions of the minority outgroup wanting the majority ingroup to
adopt the minority cultures will be associated with more symbolic threat and more prejudice towards minority members. In contrast, meta-perceptions of the minority outgroup wanting the majority ingroup to maintain the majority culture would be associated with less symbolic threat and prejudice. Thus, given meta-perceptions’ relevance in currently growing right-wing conspiracy theories as well as their predictive power of intergroup outcomes, we explored this concept as a control variable when testing our hypotheses.

**The present studies**

The present study aimed to achieve the following objectives. First, the effects of perceived culture change on intergroup outcomes have previously been demonstrated mainly using experimental methods and focussing on a US context (Zárate et al., 2012). The present research tested whether relationships between perceived culture change and intergroup outcomes would emerge when using naturally occurring self-reports rather than experimentally manipulated perceptions of culture change. In doing so, we included meta-perceptions as control variables for two reasons. First, because they have previously been shown to be important predictors of intergroup outcomes (e.g., Moftizadeh et al., 2021a). Second, because perceptions of whether outgroups want to change the societal culture can arguably be expected to be related to perceptions of whether cultural change is actually occurring. Therefore, controlling for perceptions is important to demonstrate that perceived cultural change actually makes a unique, important contribution to the prediction of intergroup outcomes, and that this effect is not simply due to theoretical overlap with similar concepts. Finally, we inspected whether the expected relationships (Hypotheses 1 and 2) would also emerge in a European context with a different immigration history and intergroup ideologies relative to the USA. Supportive results could be interpreted as additional support for cultural inertia theory.
That is, although we anticipate that the underlying psychological mechanisms explored in this research are generic, the British society is an interesting context to test the hypotheses. This is because 14% of the UK’s population are foreign-born, and there is also a large proportion of people who were born in the UK but whose parents were born elsewhere (Vargas-Silva & Rienzo, 2020). The UK is widely regarded as a multicultural society, with a history of post-war immigration, but some scholars have argued that sometimes the discourse around integration actually mirrors assimilation ideologies (Bowskill et al., 2007), and that the wider societal climate and government policy have become increasingly assimilationist or even ‘hostile’ over the years (Back et al., 2002; Lewis & Neal, 2005). Indeed, in the years following the Brexit vote, the country’s integration policy is marked by a lack of recognition as citizens with a secure future in the UK (Migrant Integration Policy Index, 2020).

Overall, the two studies presented in this paper aim to advance the understanding of intergroup consequences of perceived culture change, and thus applying the cultural inertia theory to the context of mutual acculturation. For study 1, a path model was hypothesised whereby majority members’ perception that British culture is changing as a result of ethnic minorities is associated with more feelings of symbolic threat, and therefore heightened prejudice towards ethnic minorities. On the flip side, a perception that ethnic minority cultures are changing due to exposure to the majority culture was hypothesised to be associated with fewer feelings of symbolic threat and thus less prejudice towards ethnic minorities. In addition, it was predicted that perceptions of British and ethnic minority cultures change will remain significant predictors of symbolic threat, and prejudice, even when controlling for meta-perceptions.

**Study 1**

**Participants**
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The total sample consisted of 275 respondents recruited online from Prolific.ac (85 men and 184 women; 2 participants reported their gender as neither male nor female, and 4 participants did not report their gender) between the ages of 18 and 81 ($M = 36.12$, $SD = 13.18$). As the study was interested in views of ethnic majority members in the UK, pre-screening ensured that all participants self-identified as white British, had spent the majority of their lives before the age of 18 in the UK, and were current UK residents at the time of the study. Participants were paid the equivalent of £8/hour for their participation. Ethical approval was obtained from the university ethics committee, and all aspects of the research were in line with BPS and APA ethics guidelines. The minimum number of participants was determined based on the recommendation that models with a moderate number of parameters are typically stable around $N = 200$, using the rule of thumb of at least 20 cases per parameter (Kline, 2015). In order to achieve the best possible power, we attempted to exceed the minimum N as much as possible with the available budget, and therefore 275 participants were obtained.

Design and materials

This study was cross-sectional, and participants were presented with an online survey on the platform Qualtrics. All items, unless otherwise stated, were measured on a 5-point Likert scale from 1 ‘strongly disagree’ to 5 ‘strongly agree’. The following measures were used in this study.

Perceptions of culture change

Perceptions of culture change were measured using six items, three related to British culture, and the other three related to the culture of ethnic minorities living in the UK. Participants were asked about the extent to which they agreed or disagreed with the following three items for perceptions of recent British culture change: ‘I think British culture is changing due to increasing ethnic diversity in Britain’, ‘I think the British culture is being
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influenced by ethnic minority members in Britain’, and ‘I think the British culture is morphing into something new due to ethnic minority influence’, $\alpha = .85$.

For perceptions of ethnic minority cultures change, the following three items were used: ‘I think the culture of ethnic minorities in the UK is changing due to influence from mainstream British culture’, ‘I think the culture of ethnic minorities in the UK is being influenced by mainstream British culture’, and ‘I think the culture of ethnic minorities in the UK is morphing into something new due to influences from mainstream British culture’, $\alpha = .86$.

_Perceptions of symbolic threat_

Perceptions of symbolic threat were measured using three items from Velasco Gonzalez et al. (2008), but applied to the British context. Participants were asked about the extent to which they agreed or disagreed with the following three items: ‘British identity is being threatened because there are too many ethnic minority group members living in Britain’, ‘British norms and values are being threatened because of the presence of ethnic minorities’, and ‘Ethnic minorities are a threat to the British culture’, $\alpha = .96$.

_Prejudice_

A feeling thermometer was used to explore the level of negative and positive affect towards ethnic minority members living in the UK. This is a well-known method of looking at prejudice, and has been used in past research on feelings towards minority members (e.g., Velasco Gonzalez et al., 2008). The participants were given the following instructions: ‘Using the below feeling thermometer, please indicate whether you have positive or negative feelings towards ethnic minorities living in the UK’. This 100-point thermometer was measured on a scale of 0 ‘very negative’ to 100 ‘very positive’. Markings above 50 indicated positive or warm feelings, and markings below 50 indicated negative or cold feelings. For the
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purpose of the analysis, the scale was recoded so that higher scores represented more prejudice/negative feelings towards ethnic minorities.

Meta-perceptions of minority members’ acculturation preferences for majority members

Majority members’ perceptions of minority members’ preferences for whether majority members should maintain the majority culture or adopt minority cultures were measured using six items based on research on majority members’ proximal acculturation preferences by Lefringhausen et al. (2021). Participants were asked about the extent to which they agreed or disagreed with the following three items for meta-perceptions regarding culture maintenance: ‘Ethnic minority group members living in the UK would like British people to take part in British traditions’, ‘Ethnic minority group members living in the UK would like British people to hold on to our British characteristics’, and ‘Ethnic minority group members living in the UK would like British people to do things the British way’, $\alpha = .83$.

For meta-perceptions regarding culture adoption, the following items were used: ‘Ethnic minority group members living in the UK would like British people to take part in traditions of ethnic minorities’, ‘Ethnic minority group members living in the UK would like British people to become more similar to ethnic minorities’ and ‘Ethnic minority group members living in the UK would like British people to do things the way ethnic minorities do’, $\alpha = .78$.

In addition to the measures above, some demographic information was also collected such as age, gender and education level. As well as this, two attention checks were included throughout the survey, but no participants failed both questions, so there were no subsequent exclusions. The data for both studies presented in this paper can be accessed via the following OSF link: https://osf.io/h3rqn/?view_only=2cc3b2833146491e840cc5fb4d4f862c

Results
Means, standard deviations and bivariate correlations are presented in Table 1. For all structural equation modelling reported below, the indices RMSEA, CFI, and SRMR are used to assess model fit, as recommended by Kline (2015), with an RMSEA value lower than 0.08, CFI greater than 0.90, and SRMR value lower than 0.08 commonly used as thresholds for acceptable model fit (Hooper et al., 2008). Further, we report the chi-square statistic (which should be non-significant) which, however, is sensitive to sample size and should be regarded with caution. To test the models, AMOS 28 was used. The final sample used in the analysis was \( N = 266 \) because listwise deletion was necessary to test indirect effects using bootstrap samples.

**Table 1**

*Bivariate Correlations and Means for Study 1*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perceived British culture change</td>
<td>3.70</td>
<td>0.69</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Perceived ethnic minority culture change</td>
<td>3.26</td>
<td>0.76</td>
<td>.10</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Symbolic threat</td>
<td>1.94</td>
<td>1.16</td>
<td>.28**</td>
<td>-.30**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Prejudice (feeling thermometer)</td>
<td>24.53</td>
<td>21.16</td>
<td>.17**</td>
<td>-.23**</td>
<td>.80**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Meta-perceptions about culture maintenance</td>
<td>3.06</td>
<td>0.71</td>
<td>-.20**</td>
<td>.25**</td>
<td>-.22**</td>
<td>-.19**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>6. Meta-perceptions about culture adoption</td>
<td>2.99</td>
<td>0.74</td>
<td>.26**</td>
<td>.02</td>
<td>.24**</td>
<td>.18**</td>
<td>-.12*</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note.* *p* < .05, **p* < .01. SD = standard deviation.


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**Confirmatory factor analysis**

We first conducted a confirmatory factor analysis (CFA) to test whether the construct of majority members’ perceptions of culture change (i.e., British culture change/ethnic minority cultures change) are independent from majority members’ meta-perceptions (i.e., their perception that minority members prefer majority members to maintain their national culture/adopt ethnic minority cultures) as well as from perceived symbolic threat. We specified a model with five latent variables, one each for perceived British culture change, perceived ethnic minority cultures change, perceived preference for majority members’ culture maintenance, perceived preference for majority members’ culture adoption and perceived symbolic threat. The three items for each construct were specified to load on the corresponding latent factor, and latent factors were allowed to covary. The overall model had a good fit, $\chi^2(80) = 179.03, p < .001$, RMSEA = .07 [.06,.08], CFI = .96, SRMR = .07. Factor loadings were all significant ($p < .001$) and varied between values of .46 to .97. From this, we can conclude that our inspected constructs are empirically, as well as theoretically, distinct from one another.

**Perceived culture change and prejudice**

Then, we tested our hypothesised path model. In doing so, we specified perceived British culture change and perceived ethnic minority cultures change as predictors of symbolic threat, which in turn was specified as a predictor of prejudice\(^1\). As we planned to control for the impact of meta-perceptions, we also specified majority members’ perception that minority members prefer majority members to maintain their national culture/adopt ethnic minority cultures as predictors of symbolic threat (see Figure 1). All constructs were included as observed variables and all predictor variables were allowed to covary.

The model provided an excellent fit to the data, $\chi^2(4) = 3.26, p = .52$, RMSEA= .001, CFI = .99, SRMR = .01 (see Figure 1 for standardised coefficients). British culture change
Study 1 Path Model Including Meta-Perceptions of Acculturation with Standardised Coefficients.

Perceived British culture change

Perceived ethnic minority culture change

Meta-perceptions about culture maintenance

Meta-perceptions about culture adoption

Symbolic threat

Perceived ethnic minority culture change

Prejudice (Feeling thermometer)

Note. * $p < 0.05$, ** $p < 0.01$
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was positively associated with symbolic threat ($B = .43, t = 4.44, p < .001, 95\% \text{CI} [ .23, .61 ]$), perceived ethnic minority cultures change was negatively associated with symbolic threat ($B = −.47, t = −5.38, p < .001, 95\% \text{CI} [ −.66, −.27 ]$), perceived preference for majority culture maintenance was not significantly associated with symbolic threat ($B = −.15, t = −1.53, p = .13, 95\% \text{CI} [ −.35, .05 ]$), perceived preference for minority cultures adoption was positively associated with symbolic threat ($B = .27, t = 2.97, p = .003, 95\% \text{CI} [ .05, .50 ]$), and finally symbolic threat was positively associated with prejudice ($B = 14.39, t = −21.06, p < .001, 95\% \text{CI} [12.71, 16.02 ]$).

To test the hypothesised [standardised] indirect effects, we used 5000 bootstrap samples at 95\% bias corrected confidence levels. Perceived British culture change had a significant indirect effect on prejudice, through symbolic threat, .20, 95 \% CI [.11, .29], and perceived ethnic minority cultures change also had a significant indirect effect on prejudice, through symbolic threat, −.24, 95 \% CI [-.34, -.14]. These results show that in line with the hypotheses 1 and 2, perceived culture change had a significant association with intergroup outcomes through symbolic threat, whilst controlling for meta-perceptions. This pattern of results was similar when meta-perceptions of acculturation preferences were not included in the model.

Discussion

This first study showed that a perception that British culture is changing as a result of ethnic minority cultures is associated with greater levels of symbolic threat, and therefore more prejudice towards ethnic minority members living in the UK. However, a perception that ethnic minority cultures are changing as a result of mainstream British culture is associated with fewer feelings of symbolic threat, and subsequently less prejudice towards ethnic minority members. These findings were evident even when we controlled for meta-
perceptions of acculturation preferences, demonstrating the predictive power of culture change on intergroup outcomes which merits more attention going forward.

In our second study, we attempted to replicate these findings from study 1 whilst overcoming several limitations. First, one limitation relates to the employed measure of prejudice. Although the ‘feeling thermometer’ is often used as a standard indicator for prejudice (Kunst et al., 2019; Louis et al., 2013; Velasco Gonzalez et al., 2008), single-item scales can have several shortcomings (e.g., lower predictive validity; Diamantopoulos et al., 2012). Moreover, there is currently no agreement within the literature on a standard measure of prejudice. Finally, symbolic threat and the feeling thermometer were strongly and positively correlated in study 1, and thus, the results must be interpreted with caution. Consequently, in study 2, we operationalized prejudice again as an affect variable, yet measured with multiple items, and as a behavioural variable (also measured with multiple items) to test whether the results from study 1 would replicate. We specifically chose the addition of a behavioural variable of social distancing given its severe negative impact on its targets (e.g., Williams, 2007) as well as representing another well-established prejudice indicator in social psychological research (Vanneman & Pettigrew, 1972; Weaver, 2008).

Second, in study 2, we particularly tested our hypotheses in relation to ‘English’ rather than ‘British’ society and culture. This was done because ‘British’ and ‘English’ can denote different identities and have different implications for exclusivity and inclusivity (Fenton, 2007; Kumar, 2003). Indeed, Britishness refers to people born and living in England, Wales, and Scotland. Englishness refers to people born and living in England. Thus, ‘Britishness’ is a more inclusive national identity by definition relative to ‘Englishness’. These different levels of inclusiveness of Englishness and Britishness have implications for outgroup attitudes. For example, voters who described themselves as “English, not British” showed the strongest support for the Leave campaign (and thus, anti-immigration attitudes)
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during the Brexit referendum in 2016 whereas those who described themselves as “British, not English” showed the lowest support for the Leave campaign (Curtice, 2017). As well as this, especially England (but also Wales) has seen an increase in race-related hate crime in recent years (Home Office, 2020). Therefore, we wanted to see if the processes outlined in the study above can not only be replicated but also applied across more or less inclusive national identities.

In sum, the same path model was predicted, whereby majority members’ perception that English culture is changing as a result of ethnic minority presence is associated with more feelings of symbolic threat, and therefore heightened prejudice towards ethnic minorities. On the flip side, a perception that ethnic minority cultures are changing due to exposure to the majority culture was hypothesised to be associated with fewer feelings of symbolic threat and thus less prejudice towards ethnic minorities.

Study 2

Participants

The total sample consisted of 300 respondents (82 men and 218 women) recruited online from Prolific.ac between the ages of 18 and 70 (M = 33.88, SD = 12.41). Because the study was interested in views of ethnic majority members in England, pre-screening ensured that all participants self-identified as white English, had spent the majority of their lives before the age of 18 in England, and lived in England at the time of the study. Participants were paid the equivalent of approximately £6/hour for their participation. Ethical approval was obtained from the university ethics committee, and all aspects of the research were in line with BPS and APA ethics guidelines. We used recommendations from Kline (2015) and additionally an a-priori G*Power calculation (Faul et al., 2009) to obtain .95 power based on small to medium effect sizes, to identify a minimum N of 262. We attempted to exceed this as much as possible in line with our budget, and therefore obtained 300 participants.
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Design and materials

This study was cross-sectional, and participants were presented with an online survey on the platform Qualtrics. All items, unless otherwise stated, were measured on a 5-point Likert scale from 1 ‘strongly disagree’ to 5 ‘strongly agree’. In addition to the measures outlined below, some demographic information was also collected such as age, gender, and education level. As well as this, two attention checks were included, but no participants failed both questions, so there were no subsequent exclusions.

Perceptions of culture change, symbolic threat, and meta-perceptions

Perceptions of culture change, symbolic threat and meta-perceptions were measured using the same items as discussed in Study 1. Only this time the wording was changed from ‘British’ to ‘English’. Reliability was good for all scales: perceptions of English culture change, $\alpha = .78$; perceptions of ethnic minority cultures change, $\alpha = .89$; perceptions of symbolic threat, $\alpha = .95$; meta-perceptions regarding culture maintenance, $\alpha = .86$; and meta-perceptions regarding culture adoption, $\alpha = .71$.

Prejudice

We used two different measures to assess prejudice. First, we used a social distance scale based on Bogardus (1933), which has been used in the past as a measure of prejudice in acculturation research (e.g., Zagefka et al., 2012). Participants were asked to answer the following three questions on a scale from 1 ‘Very uncomfortable’ to 5 ‘Very comfortable’: ‘How would you feel about having people from ethnic minority backgrounds as neighbours?’, ‘How would you feel about having people from ethnic minority backgrounds as work colleagues?’, ‘How would you feel about a family member marrying someone from an ethnic minority background?’. Scores on this measure were also reversed so that higher scores denoted more prejudice, $\alpha = .93$. 
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Moreover, negative affect towards ethnic minorities was measured using items from Zagefka et al. (2012). Participants were asked to rate how often they felt the following six emotions towards ethnic minorities, on a scale of 1 ‘Never’ to 5 ‘Always’: hate, contempt, envy, fear, resentment, rage, \( \alpha = .84 \).

Results

Means, standard deviations and bivariate correlations are presented in Table 2. Similar to study 1, AMOS 28 was used to test the hypothesised models. Missing data was treated with listwise deletion leaving the final sample in which all reported analysis was conducted on as \( N = 292 \).

Confirmatory factor analysis

We conducted a CFA to test whether the constructs under study were independent from each other. We devised a model with seven latent variables, one each for perceived English culture change, perceived ethnic minority cultures change, perceived preference for culture maintenance, perceived preference for culture adoption, symbolic threat, as well as prejudice in form of negative affect and social distance. The respective items for each measure were specified to load onto the corresponding latent factor, and the latent factors were allowed to covary. The overall model was a good fit, \( \chi^2(231) = 460.11, p < .001, \) RMSEA = .06 [.05, .07], CFI = .95, SRMR = .06. Factor loadings were all significant (\( p < .001 \)) and varied between values of .37 to .96. From this, we conclude that our constructs are empirically distinct measures, and thus, they can be used for further analysis.\(^2\)

Perceived culture change and prejudice

Next, we conducted a path model to test the hypotheses whilst controlling for meta-perceptions. In particular, perceived English culture change and perceived ethnic minority cultures change as well as majority members’ meta-perceptions (as control variables) were specified as predictors of symbolic threat, which in turn was specified as a predictor of both
### Table 2

**Bivariate Correlations and Means for Study 2**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perceived English culture change</td>
<td>3.83</td>
<td>0.64</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Perceived ethnic minority culture change</td>
<td>3.46</td>
<td>0.84</td>
<td>.17**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Symbolic threat</td>
<td>1.93</td>
<td>1.17</td>
<td>.21**</td>
<td>-.32**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Social distance</td>
<td>1.51</td>
<td>0.86</td>
<td>.04</td>
<td>-.22**</td>
<td>.51**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Negative affect</td>
<td>1.41</td>
<td>0.55</td>
<td>.19**</td>
<td>-.19**</td>
<td>.58**</td>
<td>.35**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Meta-perceptions about culture maintenance</td>
<td>3.38</td>
<td>0.81</td>
<td>-.11</td>
<td>.10</td>
<td>-.20**</td>
<td>-.17**</td>
<td>-.17**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>7. Meta-perceptions about culture adoption</td>
<td>2.81</td>
<td>0.76</td>
<td>.39**</td>
<td>.04</td>
<td>.36**</td>
<td>.11</td>
<td>.25**</td>
<td>-.13*</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note.  *p < .05, **p < .01. SD = standard deviation.
prejudice indicators (i.e., social distance and negative affect; see Figure 2). All constructs were included as observed variables, and all predictor variables as well as the dependent variables’ error terms were allowed to covary.

The model provided good fit to the data, $\chi^2(8) = 10.09$, $p = .26$, RMSEA = .03, CFI = .99, SRMR = .03 (see Figure 2 for standardised coefficients). Perceived English culture change was positively associated with symbolic threat ($B = .24$, $t = 2.43$, $p = .02$, 95% CI [.04, .44]), perceived ethnic minority cultures change was negatively associated with symbolic threat ($B = −.47$, $t = −6.64$, $p < .001$, 95% CI [−.63, −.31]), perceived preference for majority culture maintenance was negatively associated with symbolic threat ($B = −.16$, $t = −2.09$, $p = .04$, 95% CI [−.33, .01]), perceived preference for minority cultures adoption was positively associated with symbolic threat ($B = .46$, $t = 5.48$, $p < .001$, 95% CI [.29, .63]), symbolic threat was positively associated with social distance ($B = .37$, $t = 10.08$, $p < .001$, 95% CI [.29, .45]), and finally, symbolic threat was also positively associated with negative affect ($B = .27$, $t = 11.98$, $p < .001$, 95% CI [.22, .33]).

To test the hypothesised [standardised] indirect effects, we used 5000 bootstrap samples at 95% bias corrected confidence levels. Perceived English culture change had a significant indirect effect on social distance, .07, 95% CI [.01, .13] and negative affect, .08, 95% CI [.01, .15], through symbolic threat. Perceived ethnic minority cultures change also had a significant indirect effect on social distance, −.17, 95% CI [−.28, −.10], and negative affect, −.20, 95% CI [−.28, −.12]. Once again, these results are in line with hypotheses 1 and 2, showing that perceived culture change had a significant relationship with intergroup outcomes through symbolic threat even when controlling for meta-perceptions. Notably, the pattern of results remained stable when meta-perceptions of acculturation preferences were not included in the model.
Figure 2.

Study 2 Path Model Including Meta-Perceptions of Acculturation with Standardised Coefficients.

Note. * p < 0.05, ** p < 0.01
Discussion

In study 2, we found that the findings in study 1 replicated in the context of ‘England’ and ‘English culture’ as well as across two different operationalizations of prejudice (i.e. negative affect and social distance). We showed that a perception of English culture to be changing because of ethnic minority cultures is associated with greater levels of symbolic threat, and therefore with more prejudice towards ethnic minority members living in England. However, a perception that ethnic minority cultures are changing because of mainstream English culture is associated with fewer feelings of symbolic threat, and subsequently less prejudice towards ethnic minority members. Again, these findings were evident even when we controlled for meta-perceptions of acculturation preferences.

General Discussion

In the present research, we explored across two studies how majority members’ perceptions that their own or ethnic minority members’ cultures are undergoing change due to influences from one another are related to feelings of threat, and in turn, to levels in prejudice. The first study explored these relationships within a British context, while the second study replicated the findings in the more specific context of English culture and national identity as well as across different operationalizations of prejudice. Specifically, even though a ‘British’ national identity is usually considered as more inclusive than an ‘English only’ national identity, the associations described in this study seem to apply to both contexts.

In line with the theory of cultural inertia, our results indicate that majority members tend to resist culture change which may disrupt the stability of the dominant society (Zárate et al., 2012). Indeed, if recent cultural change seems to be impacting the majority group due to more multicultural values or accommodation of minority groups in society, this can often be experienced as a threat to the majority group’s way of life and status (Verkuyten, 2007).
Conversely, if cultural change is perceived to take place in a direction beneficial to the majority group – that is, one which does not disturb the status quo (e.g., through assimilationism), then majority members are more likely to be receptive to such a change.

Overall, the present study provides further support for the theory of cultural inertia by using naturally occurring self-reported data from a European context.

Regarding the acculturation literature, our findings represent important advancements in several ways. First, this study adds to the emerging literature that emphasises the importance of exploring potential culture change from the majority group perspective – e.g., cultural inertia theory (Zárate et al., 2012), and majority members’ acculturation orientations towards minority cultures (Lefringhausen et al., 2021) – to paint a more complete picture of the intergroup consequences of culture change. This provides insights into a field within the acculturation literature which has been lacking attention (Zagefka et al., 2022). Thus, the findings in this study propose a shift away from using the acculturation preference dimensions or strategies (e.g., personal preference to maintain one’s culture) as measures of preferred culture change, in favour of measures that tap into perceived actual culture change. Although acculturation preference dimensions remain relevant in understanding how groups might react to the ways in which outgroups choose to acculturate, this study paves the path for future work to directly compare whether measures based on the theory of cultural inertia (Zárate et al., 2012) can potentially be more powerful antecedent of prejudice.

Finally, we included majority members’ perceptions that minority members want them to change their culture or remain engaged with their national culture (i.e., meta-perceptions; Moftizadeh et al., 2021a) as control variables in all our analyses. Thus, we accounted for the current increasing trend across the USA and Europe of white majority members believing in right-wing conspiracy theories that propagate ethnic minority members to want majority members to reject their national culture. In so doing, we added further
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weight to our understanding of how perceived culture change relates to intergroup relations despite majority members’ endorsing meta-perceptions.

Limitations, Future Directions, and Conclusion

Of course, this study is not without limitations that need to be discussed. Firstly, the two studies can only be considered as exploratory analyses; therefore, future pre-registered studies should corroborate the findings. Further, these studies were cross-sectional in nature, and one therefore cannot infer any directional causality from the results. For example, we conceptualized symbolic threat as a mediator; but it may also be an antecedent of perceived culture change, just as it has been previously shown to be an antecedent of attitudes to multiculturalism and assimilation (Badea et al., 2018; Tip et al., 2012). To establish directionality, it will be useful to conduct longitudinal and experimental research (Kunst, 2021). Future studies could use experimental manipulations like Zárate et al. (2012) to further explore the intergroup consequences of perceived culture change. Having said this, we would maintain that it is still of value to demonstrate that perceptions of cultural change actually matter, and to find demonstrable relationships, when they are naturally occurring in people’s thoughts and impressions. Indeed, while an experimental approach can answer questions about causality, the present approach can answer questions about the ecological validity and importance of culture change to people’s lived experiences.

A further limitation relates to the sample used across both studies. Participants were recruited using the online platform Prolific.ac. In the past, there have been concerns about the data quality obtained from crowdsourcing platforms (Chmielewski & Kucker, 2020). Nevertheless, relative to other online platforms, Prolific.ac can be considered more reliable in terms of providing acceptable data quality and diversity of participants (Palan & Schitter, 2018; Peer et al., 2017). Additionally, we tried to bypass potential sample issues by using specific pre-screening questions, and attention check measures. Nonetheless, it remains
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questionable to what extent our samples can be considered representative and this should be taken into account when interpreting the findings.

According to the theory of cultural inertia, perceived culture change is likely to impact intergroup relations when there is a perception that change is not already occurring. Although we measured perceptions of the degree to which the majority/minority cultures in the UK are changing, no variable in this study explicitly measured whether this change is more recent, and thus more likely to be considered a threat, or whether British/English society has been changing at a steady motion (Zárate, 2019). Future research should consider this in relation to the perceived change in British/English society to shed further light on the intergroup consequences of perceived culture change. As well as this, the processes in this study were studied in relation to ethnic minorities in general. While this is useful to gain insight into an overall sense of majority-minority group dynamics, it may be of value to study particular minority groups in the UK in future research or compare how majority members react to different minority groups (Moftizadeh et al., 2021a). Indeed, it may be that some groups are seen to change British culture more than others.

On the back of the findings presented in this paper, there are some other interesting avenues for further research. First, the relationship between perceived culture change and some alternative intergroup variables should be explored to understand other mechanisms which may drive prejudice towards ethnic minorities, such as a sense of angst over the future of British society (Wohl et al., 2010), or disruptions to perceived cultural continuity (Sani et al., 2007). As well as this, exploring intergroup moderators of this relationship can shed light on the instances where perceived change may be more likely to have an impact on perceptions of threat and prejudice. For example, high identifiers often show stronger reactions to any threat to their ingroup than low identifiers, so identification should be explored as a potential moderator in future research. Similarly, how majority members react
to perceived change might also relate to the extent to which they themselves may be invested in the majority and/or minority cultures, and thus it may be also insightful to explore own acculturation preferences as moderators of the relationship between perceived culture change and intergroup prejudice. Finally, the level of intergroup contact majority members engage in is very likely to act as a moderator, too. Particularly, the relationship between perceived cultural change and symbolic threat might be stronger among majority members who have no or little contact with ethnic minority members relative to those who have regular and positive intergroup contact. Given the accumulated evidence on how more intergroup contact relates negatively to prejudice (Hodson et al., 2018; Pettigrew & Tropp, 2011) and perceived outgroup threat (Aberson, 2019), this is a very promising route for future explorations.

Taken together, the present research demonstrated across two studies that perceptions of culture change can predict prejudice towards ethnic minorities through perceptions of symbolic threat; and this has important implications in an increasingly globalised world. Indeed, in today’s world, culture change is inevitable due to globalisation impacting trade, political trends and overall increasing worldwide immigration. Practically speaking, our results suggest that if intergroup policies and interventions are tailored to breaking this link between perceived threat and the role of minority cultures in majority societies this may promote more harmonious multicultural societies. That way, any societal change which brings to the fore the culture of minority groups does not increase the possibility of more prejudice towards ethnic minorities and subsequent conflict between majority and minority groups.
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Declaration of Conflicting Interests

Declarations of interest: none
References


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https://doi.org/10.1177/1948550619875149


https://doi.org/10.1111/j.1469-8129.2007.00279.x


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members want majority members to adopt the minority culture. *International Journal of Psychology.* [https://doi.org/10.1002/ijop.12756](https://doi.org/10.1002/ijop.12756)


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Footnotes

1 For both studies, age and gender were entered into the model as controls. There was no substantial impact on overall model fit or on any of the paths reported in the models. Therefore, because these variables were not central to our research question, nor were they included in the hypothesis, we decided not to include them in the final reported model to avoid over complication.

2 Because of the strong correlation between the feeling thermometer item and symbolic threat in study 1, we further tested the empirical separateness of our prejudice constructs of ‘negative affect’ and ‘symbolic threat’ for study 2. To do so, we ran another CFA including only these two constructs with all items loading onto a single latent factor. This model fitted the data poorly, $\chi^2(27) = 583.42, p < .001, \text{RMSEA} = .27 [.25, .29], \text{CFI} = .72, \text{SRMR} = .16$. This gives further confidence that those constructs are indeed sufficiently separate.