Perceived prototypicality of Asian subgroups in the United States and the United Kingdom☆

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ABSTRACT

Asians are monolithically categorized under one broad racial label despite their diverse compositions (e.g., with national origins from South, East, Southeast, or West Asia). Some Asian subgroups are perceived to be more prototypically Asian than others and cultural contexts may further shape such perception. With historically longstanding presence of East Asians in the United States and South Asians in the United Kingdom, we theorized that the perceived prototypicality of different Asian subgroups in the two countries would reflect these respective historical saliencies. Three studies ($N = 849$) examined how (non-Asian) Americans and Britons perceived different Asian subgroups in terms of how prototypically Asian and how foreign they seem. Studies 1 and 2 found that compared to British participants, Americans perceived East and Southeast Asians as more prototypically Asian; Britons considered South Asians as more prototypically Asian than American participants. Study 3 showed that Americans perceived East and Southeast Asians to be less foreign and more prototypically American than South and West Asians; in contrast, Britons perceived South Asians to be less foreign and more prototypically British than all other Asian subgroups. This research demonstrates the importance of disaggregating Asian subgroups and contextualizing prototype theories within sociohistorical frameworks.

1. Introduction

Asian Americans are the fastest growing race in the United States (US), while Asian British are the largest racial minority group in the United Kingdom (UK); it is estimated that there are approximately 23 million Asian Americans (7% of the US population) and 4.2 million (7.5% of the UK population) Asian British (Office for National Statistics, 2020; Pew Research Center, 2021). However, the monolithic category of the Asian label conceals the diversity of the Asian American and British populations. In the US (based on the 2019 US Census American Community Survey), 5.4 million Chinese Americans and 4.6 million Indian Americans represent the two largest Asian subgroups, with Indian Americans projected to surpass Chinese Americans. Beyond these two dominant subgroups, there are 4.2 million Filipino Americans, 2.2 million Vietnamese Americans, 1.9 million Korean Americans, and 1.5 million Japanese Americans (Pew Research Center, 2021). In the UK (based on the 2011 UK Census), South Asian subgroups compose the majority of the Asian British population with 1.4 million Indian British, 1.1 million Pakistani British, and 447,201 Bangladeshi British. Unlike

their dominant US counterpart, there are approximately 393,141 Chinese British (Office for National Statistics, 2020). These diverse Asian subgroups differ not only on national origins, but also religions, social economic status, languages, phenotypes, and so much more.

Despite their heterogeneity, Asians are often regarded as one large, all-encompassing group. Asians are stereotyped to "look all the same" and as perpetual foreigners who do not belong in the US or the UK (Flores & Huo, 2012; Huynh, Devos, & Smalarz, 2011; Sue, Bucceri, Lin, Nadal, & Torino, 2007; West, 2019). Major social psychological and sociological theories further paint Asians with broad strokes that ignore the diverse experiences of the Asian subgroups, let alone in-depth examination of potential differences between different nations and cultures (J. Lee & Ramakrishnan, 2020). The current research, therefore, examines how Asian subgroups are perceived in the US and the UK. Specifically, we examine how (non-Asian) American and British participants perceive different Asian subgroups in terms of their resemblance and fit under the "Asian" and "citizenship" prototypes.

Three studies focused on the perceived prototypicality of East Asians (e.g., Asians with Chinese or Korean heritage and features) and South

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Asians (e.g., Asians with Indian or Pakistani heritage and features). Studies 2 and 3 further included Southeast Asians (e.g., Asians with Vietnamese or Filipino heritage and features) and West Asians (e.g., those with Arab or Iranian heritage and features). West Asia geographically covers Middle Eastern and Arab nations, and we use West Asians broadly to encompass people with such heritage. We acknowledge that groupings based on geographic regions do not fully capture the diversity and complexity of the Asian populations in both the UK and the US. This is complicated by difficulty in categorizing South and West Asians, especially in the US. "Brown" people pose particular challenges to racial categorization because they do not fit into the Black-White racial binary that Americans are more familiar with (Kibria, 1996; Thangaraj, 2015; Zopf, 2018). Instead, Arabs and Middle Easterners (and South Asians) are often conflated and racialized into an ambiguous "Arab-Middle Eastern-Muslim" category (Cainkar, 2018; Naber, 2000). Although Middle Easterners are formally categorized as White on the US Census, American lay perceivers do not consider them as such (Chaney, Sanchez, & Saud, 2021). Therefore, we deemed it necessary to create such geographic groupings in our research to disambiguate the complexity of racial constructions.

1.1. Prototype of Asians

Given the rich diversity of the Asian populations, perceivers must thus rely on mental shortcuts and heuristics to simplify the racial group. Social prototypes are heuristics that people use to organize complex social groups such as gender and race into simpler, overarching mental representations (Brewer, 1988; Rosch, 1978; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Prototypes are culturally and contextually determinant and they are informed by numeric representations as well as familiarity with the group (Dotsch, Hassin, & Todorov, 2016; Hogg, 1993; Lei & Rhodes, 2021; Rosch, 1978; Vogel, Ingendahl, & Winkielman, 2021). For instance, women vary considerably in race, physical features, and psychological traits, but some women (e.g., White and stereotypically feminine women) are seen as more prototypical and representative of the female gender group than others (e.g., Black women, masculine women) in most Western societies (Lei, Leshin, & Rhodes, 2020; Purdie-Vaughns & Eibach, 2008; Thomas, Dovidio, & West, 2014). Those that deviate from the prototypical image of their social groups are often disliked, forgotten, punished, or discredited (Goh, Bandt-Law, Cheek, Sinclair, & Kaiser, 2021; Phelan & Rudman, 2010; Purdie-Vaughns & Eibach, 2008; Schug, Alt, Lu, Gosin, & Fay, 2017; Sesko & Biernat, 2010; Vogel et al., 2021).

For Asian prototypes, East Asians are seen as more "Asian" than South Asians and Southeast Asians in the US; Southeast Asians are also considered to be more prototypically Asian than South Asians (J. Lee & Ramakrishnan, 2020; Ocampo, 2016; Park, 2008). While all Asian Americans perceive their own groups to be Asians, South Asians are consistently excluded from this racial label by perceivers who identify as White, Black, Latinx, East Asian, and Southeast Asian; all groups agree that East Asians best represent the Asian label (J. Lee & Ramakrishnan, 2020). Arabs are not considered as Asian by all respondents as well, but interestingly Pakistanis and Arabs are both perceived to be equally unfitting of the Asian label (J. Lee & Ramakrishnan, 2020). West Asians (broadly including Arabs and Middle Easterners) pose a particular challenge for social categorization. Middle Eastern and North African (MENA) Americans are considered White on the US Census, but Chaney, Sanchez, & Saud, 2021 demonstrated that labelling White faces with MENA nationalities such as Iranian and Lebanese (as opposed to European nationalities) reduced the perceived Whiteness of the faces.

Evidence thus suggests that West and South Asians are positioned the farthest from the Asian label in the US, with East Asians as the prototype then followed by Southeast Asians (J. Lee & Ramakrishnan, 2020; Park, 2008). Because of this dominant East Asian prototype in the US, other Asian subgroups may feel unseen or dismissed (Flores & Huo, 2012; Ocampo, 2016) or they are treated differently than East Asians (Kuo,

Kraus, & Richeson, 2020; Lu, Nisbett, & Morris, 2020). To our knowledge, the Asian prototype in the UK has not been examined.

1.2. Brief histories of Asians in the US and the UK

Because prototypes are culturally determined, who is considered prototypical in one context may not necessarily generalize to another (Turner et al., 1987). In their review of social categorizations, Kawakami, Hugenberg, & Dunham (2020) noted that "a culture or nation's history can have a large impact on determinants of social categorization and the cultural significance of specific categories" (p. 26). Kawakami et al. (2020) provided the example of the Irish immigrants who were once considered distinct from the White racial group, yet over time, Irish immigrants became racialized as White (for more details, see Jacobson, 1999). This demonstrates that race is not biologically based but rather it is socially constructed and context-dependent. As such, Asian subgroups could be perceived differently in the US and the UK. Specifically, we propose that East Asians are perceived to be the prototypical Asians in the US, which confirms previous literature (Kuo, Kraus, & Richeson, 2020; J. Lee & Ramakrishnan, 2020; Ocampo, 2016; Park, 2008). In contrast, we argue that South Asians are considered the prototype of Asians in the UK. This divergence in prototypicality can be explained by the historical presence of Asians in the two countries.

The history of Asian Americans primarily centers on East Asian Americans (for a detailed review, see E. Lee, 2015). The earliest mass migrations from Asia were Chinese and Japanese laborers who built the railroads and worked in various low-wage and dangerous positions. Governmental sanctions against Asian Americans and immigrants also targeted East Asians such as the Chinese Exclusion Act and the internment camps that unjustly displaced Japanese Americans. The Immigration and Nationality Act of 1965 ushered in a new wave of Asian immigrants, allowing highly-skilled Asian immigrants to seek graduate and medical degrees in the US and they established the modern generations of Asian Americans. This Act also allowed South Asians entries for the first time in large numbers and shifted the Asian American demographic. Today, Chinese Americans remain the largest Asian subgroup and Indian Americans are the second largest ethnic group. Despite their recent growth, South Asian Americans have a much shorter historical representation than East Asian Americans.

In contrast, South Asians have historically and numerically dominated the Asian category in the UK (Office for National Statistics, 2020). British imperialism looms over almost all aspect of British history in respect to Asian migration (for a detailed history, see Benton & Gomez, 2008; Visram, 2002). Deemed the British Empire's Jewel in the Crown, the Indian subcontinent was fundamentally shaped by its occupation until the Partition of India in 1947. During the British Raj, indentured servitude (as sailors, laborers, nannies, soldiers) transported South Asians throughout the British Empire and into the UK. After WWII, the Partition of India and the Chinese Civil War brought refugees into the UK because its immigration policy then had allowed citizens of the Commonwealth and former colonies unrestricted entries into the UK until 1962. British labor shortage in the 1950s and 60s further saw massive chain migration of laborers from South Asia and Hong Kong. As immigration policies tightened in the 1960s, Asian British families in the UK proliferated and they built the modern multiracial British population.

Given these historical differences of the two countries, East Asians may be perceived as the prototypical Asian in the US but South Asians may be favored as the prototypical representation in the UK.

1.3. Prototypical citizens and perpetual Foreigners

Beyond the prototype of a particular racial group, there are also prototypes of larger cultures or nations. White Americans are deemed the most prototypical Americans, and Asian Americans are perceived to be less prototypically American than Black and White Americans (Devos

& Banaji, 2005; Yogeeswaran & Dasgupta, 2010). Non-prototypical group members are considered to be outsiders and deemed less deserving of belonging in certain spaces (Cheryan & Monin, 2005; Cheryan, Ziegler, Montoya, & Jiang, 2017; Zou & Cheryan, 2017). In both the US and the UK, Asians are perceived to be "perpetual foreigners" who do not belong and cannot assimilate into the American and British societies (Benton & Gomez, 2008; Huynh et al., 2011; Kim, 1999; Zou & Cheryan, 2017). This is exemplified during World War II when Japanese Americans' loyalty and belonging in the US were challenged to such an extent that they were forced into internment camps (E. Lee, 2015). In essence, Asian Americans and Asian British are perceived as less prototypically American/ British and as perpetual foreigners in their own homes.

It is unclear how the stereotype of perpetual foreigners extends to different Asian subgroups. Because prototypes usually hold numeric representation and familiarity within a particular culture given their historical presence, they would likely be considered as less foreign than non-prototypical members who have shorter historical opportunities to socially integrate. It is, therefore, possible that certain subgroups may be deemed more foreign than others due to their distance from the Asian prototype. Since the 1967 Arab-Israeli War, Arab Americans and other Middle Easterners were racialized as a distinctive dangerous "Brown" racial group in the US and the September 11 terrorist attack further stereotyped Arabs, South Asians, and Middle Easterners uniformly as terrorists who are perceived not simply as foreign but as entirely un-American (Cainkar, 2018; Hitlan, Carrillo, Zárate, & Aikman, 2007; Zopf, 2018; Zou & Cheryan, 2017). In contrast, South Asians have longstanding history in the UK and therefore may not be perceived as foreign as other Asian subgroups (Visram, 2002).

Disaggregating Asian subgroups may provide further insights into who may be considered as a prototypical American/ British citizen or as a perpetual foreigner. We argue that the perpetual foreigner stereotype may target some subgroups more so than others but this is dependent on the cultural contexts. South Asians' longstanding history, numeric representation, and recognized familiarity within the UK may lead them to be seen as less foreign and more prototypically British than other Asians. In contrast, East Asians' enduring presence in the US may lead them to be seen as less foreign and more prototypically American relative to South Asians who are stereotyped as anti-American terrorists and have a shorter historical presence.

1.4. Current research

The prototypes of Asians in the US and the UK may diverge due to historical Asian migrations in the two countries that contributed to different numeric representations. In the US, East Asians have traditionally represented the Asian group; whereas in the UK, South Asians hold a consistently larger social and numeric representations. Given their distinctive histories, (non-Asian) Americans and Britons would likely hold divergent conceptions about how well each Asian subgroup fit the prototypical image of Asians and the prototypical image of citizen or foreigner in the US and the UK. Study 1 examined the extent to which South and East Asian faces are perceived as prototypically Asian by Americans and Britons. Study 2 asked all participants to rate a list of Asian subgroups (from East Asia, South Asia, Southeast Asia, and West Asia) on their perceived Asian prototypicality. Finally, Study 3 examined the perceived foreignness (and the prototypicality of citizenships) of Asian subgroups in the US and the UK. We predicted that compared to Britons, Americans would perceive East Asians as more Asian and less foreign. Contrastingly, Britons would perceive South Asians as more Asian and less foreign than Americans. Studies 2 and 3 also included Southeast and West Asians to further explore differences in perceived prototypicality.

This research advances social psychological theories in several ways. First, we provide an in-depth examination of a racial group that is understudied and demonstrate that extant theoretical generalizations require a more nuanced and disaggregated approach. Second, we advance prototype theories by directly testing how prototypical representations of social groups can diverge considerably in two seemingly similar contexts. We achieve this by grounding our prototype frameworks within historical contexts. Given the particular ahistorical approach of our field (Gergen, 1973; Muthukrishna, Henrich, & Slingerland, 2021; Trawalter, Bart-Plange, & Hoffman, 2020), this research demonstrates that cultural histories can inform basic social processes (Kawakami et al., 2020).

We report all measures, manipulations, and exclusions in these studies. All data, material, and pre-registrations are available on Open Science Framework (OSF) here: https://osf.io/rksmu/

2. Study 1

Study 1 provided the first demonstration that Americans and Britons diverged in how they perceived the prototypicality of South and East Asians. Study 1 used naturalistic photographs of South Asians, East Asians, and White people. White targets were included because they are seen as the national prototype in the two countries (Devos & Banaji, 2005; Hansen, 2000) and thus provide relevant comparisons for the two Asian subgroups. We pre-registered that Americans (relative to Britons) would perceive East Asians as more prototypically Asian, but Britons (relative to Americans) would perceive South Asians as more prototypical.

We further predicted that there would be subgroup differences within each participant nationality. For American participants, East Asians would be seen as more prototypically Asian than South Asians, and both Asian subgroups would be seen as more Asian than White targets. For Britons, South Asians would be perceived as more Asian than East Asians (both groups would again be seen as more Asian than White targets).

2.1. Method

2.1.1. Participants

We pre-registered our recruitment goal to be at least 150 British residents and 150 American residents via Prolific platform. This recruitment goal was determined by doubling the sample of Study 4 in Chaney, Sanchez, & Saud, 2021 and budgetary concern. On the Prolific platform, we set participant restrictions to American and British nationals currently residing in the US and the UK, and we excluded all Asian participants as well. A total of 361 participants (181 Britons and 180 Americans) were recruited from Prolific in anticipation of data exclusion. We excluded 10 participants who indicated that they responded randomly to the study as well as those that later identified as Asian on the demographic questionnaire.[1]

Of the remaining 351 participants (217 identified as female, 133 as male, and 1 as non-binary; *M* age = 34.78), there were 176 Britons and 175 Americans. Participants were primarily White (319), 17 identified as Black, 20 Latinx, 2 Native Americans/ Indigenous people, 2 as Middle Easterner/ North African, 1 Native Hawaiian/ Pacific Islander, and 1 unspecified. Participants could identify with more than one race on demographic forms in all three studies.

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[1] We pre-registered that we would also exclude participants who did not pass an attention check. The attention check asked participants to select "*Very Likely*" for a White female target. However, only 90 participants passed this check presumably because participants memorized the question for all trials to classify each face as Asian and most would not select *Very Likely* for a White target. As such, we opted to retain all participants who did not pass this attention check. Analyses of the remaining 90 participants did not change any of the presented results, with one exception in that British participants no longer significantly differentiated the prototypicality of East and South Asian targets (*p* = .363).

With 351 participants, sensitivity analysis for repeated measures ANOVA within-between interaction ($\alpha = 0.05$, 80% power, 2 groups, 3 measures, $r = 0.10$, and $\varepsilon = 0.944$) showed the minimal effect size that could be detected is $f = 0.093$, $\eta_p^2 = 0.009$.[2]

2.1.2. Procedure

Participants saw 30 photos in randomized order. The photos consisted of 10 East Asians, 10 South Asians, and 10 Whites. Within each group, five photos were women and five were men. All photos were drawn from the Ryerson Emotional Face Database (Latif, Sugden, O'Hagan, & Moulson, 2021). All targets had neutral expressions and they were of similar age range (20–30 years old).[3]

For each photo, participants rated how likely they would classify each person as Asian on a 5-point scale (1 = *Not at all likely*; 5 = *Extremely likely*). Ratings were averaged by racial groups: East Asians (Cronbach's $\alpha = 0.93$), South Asians ($\alpha = 0.96$), and Whites ($\alpha = 0.82$).

2.2. Results

We conducted a 2 (between-subject nationality: American and British) x 3 (within-subject targets: East Asian, South Asian, and White) mixed analysis of variance (ANOVA) with perceived Asian prototypicality as the dependent measure. Test of sphericity was significant (Mauchly's $W = 0.94$, $X^2 = 21.09$, $p < .001$, Greenhouse-Geisser $\varepsilon = 0.944$) so we used the Greenhouse-Geisser correction for all analyses. There was a main effect of participant nationality, $F(1, 349) = 59.49$, $p < .001$, $\eta_p^2 = 0.15$, and a main effect of targets, $F(1.89, 659.24) = 1664.60$, $p < .001$, $\eta_p^2 = 0.83$ (see Appendix A for details). The main effects were qualified by a predicted significant interaction, $F(1.89, 659.24) = 145.46$, $p < .001$, $\eta_p^2 = 0.29$.

We first tested simple effects by participant nationality (see Table 1 for descriptive statistics and Fig. 1). Americans perceived East Asians as significantly more Asian than British perceivers, $F(1, 349) = 5.29$, $p = .022$, $\eta_p^2 = 0.02$. In contrast, Britons perceived South Asians as more prototypically Asian than Americans, $F(1, 349) = 192.99$, $p < .001$, $\eta_p^2 = 0.36$. Americans and Britons did not differ for White targets, $F(1, 349) = 0.63$, $p = .427$, $\eta_p^2 = 0.002$.

We next tested for the effect of targets at each level of nationality. Pairwise comparisons with a Bonferroni correction showed that all comparisons were significant. For Americans, there was an overall target effect, $F(2, 348) = 1013.98$, $p < .001$, $\eta_p^2 = 0.85$. Americans considered East Asians as significantly more prototypical than both South Asians ($d_z = 1.90$, $p < .001$) and Whites ($d_z = 3.31$, $p < .001$). The target effect was also significant for British participants, $F(2, 348) = 1187.39$, $p < .001$, $\eta_p^2 = 0.87$. Unexpectedly, British participants also rated East Asians as significantly more Asian than both South Asians ($d_z = 0.41$, $p < .001$) and Whites ($d_z = 3.32$, $p < .001$). White targets were considered less prototypically Asian than South Asians for both Americans ($d_z = 1.06$, $p < .001$) and Britons ($d_z = 2.74$, $p < .001$).

2.3. Discussion

Study 1 found that Britons and Americans diverged in who they considered as prototypically Asian. As predicted, Americans (relative to Britons) perceived greater prototypicality in East Asians and less prototypicality in South Asians. For Americans, East Asians were perceived as more prototypically Asian than South Asians.

Unexpectedly for Britons, East Asian faces were also perceived as more prototypically Asian than South Asian faces but this difference was much smaller than the effect for Americans ($d_{\text{British}} = 0.41$ vs $d_{\text{American}} = 1.90$). The unexpected East Asian prototypicality among Britons may be due to several factors. First, the trial question prompted participants to classify each face as "Asian." Participants could potentially be rating the targets as those currently residing in Asia as opposed to Asian British in the UK. With China becoming more prominent on the world stage and media (particularly during the COVID-19 pandemic) as well as increasing Chinese immigrants into the UK (Office for National Statistics, 2020), East Asian faces may be perceived as more fitting of the Asian label than South Asian faces. Second, facial phenotypes and features (e.g., facial hair, skin tone) may influence participants' perceptions due to difficulty in accurately identifying South Asian targets as South Asians (Cainkar, 2018; Kibria, 1996). As such, Study 2 attempted to ameliorate these issues by asking participants to rate a list of Asian subgroup targets (e.g., Chinese, Indian, Vietnamese) on their perceived prototypicality as specifically Asian Americans (for Americans) and Asian British (for British participants). By providing a list of Asian subgroups, we avoid influence of facial features and phenotypes.

3. Study 2

Extending Study 1, Study 2 provided a list of Asian subgroups rather than using photographs. American and British participants rated the Asian prototypicality of 12 groups that fell under four Asian geographic regions (i.e., East Asians, South Asians, Southeast Asians, and West Asians). We predicted that British participants would be more likely to classify South Asians as Asian compared to American participants, but Americans would perceive East Asians as more prototypically Asian than British participants. We did not make specific predictions regarding the other two Asian subgroups.

Within each nationality, we predicted that American participants would be more likely to classify the subgroups as prototypically Asian in the order of East Asians, Southeast Asian, South Asian, and then West Asians (replicating J. Lee & Ramakrishnan, 2020; Park, 2008). For Britons, the order of perceived prototypicality would be South Asian, East Asian, Southeast Asian, and then West Asians. We predicted West Asians to be the least prototypical Asian for both British and American participants because they are not usually recognized as Asian (geographically and politically) and that the terrorist stereotype would likely position them farthest from the Asian prototype (Hitlan et al., 2007; Zopf, 2018; Zou & Cheryan, 2017).

3.1. Method

3.1.1. Participants

We set our recruitment goal to be 100 Britons and 100 Americans. This number was determined due to budgetary concern and a large interaction effect size from study 1 ($\eta_p^2 = 0.29$) that would ensure 80% power for $\alpha = 0.05$. We restricted the study to American and British nationals currently residing in the US and UK, and we excluded all Asian participants (including Middle Easterners). A total of 222 participants (111 Britons and 111 Americans) were recruited from Prolific in anticipation of data exclusion. Ten participants were excluded because they indicated that they responded randomly as well as those that identified as Asian on the demographic questionnaire.

Of the remaining 211 participants (131 identified as female, 77 as male, and 3 as non-binary or another term; *M* age = 34.71), there were

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[2] We used G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) for the sensitivity analyses in all three studies and opted to use a small correlation of 0.10 given the wide range across the repeated measures. For the nonsphericity correction ε, we used the epsilon for Greenhouse-Geisser correction. Cohen's f was converted to partial eta squared using the formula: $f^2 / (1 + f^2)$.

[3] We ran a separate study ($N = 394$ Americans) to determine the attractiveness of the targets (on a 5-point scale). South Asian targets ($M = 3.12$, $SD = 0.66$) were perceived to be similarly attractive as East Asian targets ($M = 3.10$, $SD = 0.66$). White targets ($M = 3.33$, $SD = 0.61$) were more attractive than the two Asian subgroups ($ps < 0.001$), omnibus $F(1.87, 732.83) = 52.10$, $p < .001$, $\eta_p^2 = 0.12$. Because the procedure asked participants to rate the perceived Asian prototypicality of each target, the attractiveness of White targets is irrelevant and we do not see this as a concern.

Table 1
Means and (Standard Deviations) of target ratings in Studies 1–3.

Targets	Study 1		Study 2		Study 3	
	Americans (n = 175)	Britons (n = 176)	Americans (n = 104)	Britons (n = 107)	Americans (n = 141)	Britons (n = 146)
East Asians	$4.17 (0.72)^1_a$	$3.97 (0.86)^2_a$	$4.31 (0.96)^1_a$	$2.83 (1.31)^2_a$	$2.47 (1.41)^1_a$	$2.07 (1.05)^2_a$
South Asians	$2.15 (0.96)^1_b$	$3.54 (0.91)^2_b$	$2.39 (1.16)^1_b$	$3.09 (1.22)^2_a$	$2.11 (1.26)^1_b$	$2.67 (1.45)^2_b$
Southeast Asians	–	–	$3.74 (1.04)^1_c$	$2.64 (1.26)^2_b$	$2.36 (1.31)^1_a$	$1.98 (1.04)^2_a$
West Asians	–	–	$1.88 (1.03)^1_d$	$1.92 (0.96)^1_c$	$1.98 (1.22)^1_b$	$1.98 (1.04)^1_a$
White/Canadians	$1.16 (0.36)^1_c$	$1.13 (0.19)^1_c$	–	–	$4.50 (1.63)^1_c$	$3.37 (1.47)^2_c$

Different number superscripts indicate significant pairwise comparisons between American and British participants for each target (significant differences across the row in each study). Different letter subscripts indicate significant pairwise comparisons of Asian subgroups within each nationality (significant differences within the column in each study). Studies 1 and 2 used 5-point scale with higher scores indicating more perceived Asian prototypicality. Study 3 used 7-point scale with higher scores indicating more perceived American/ British prototypicality and lower scores indicating more perceived foreignness.
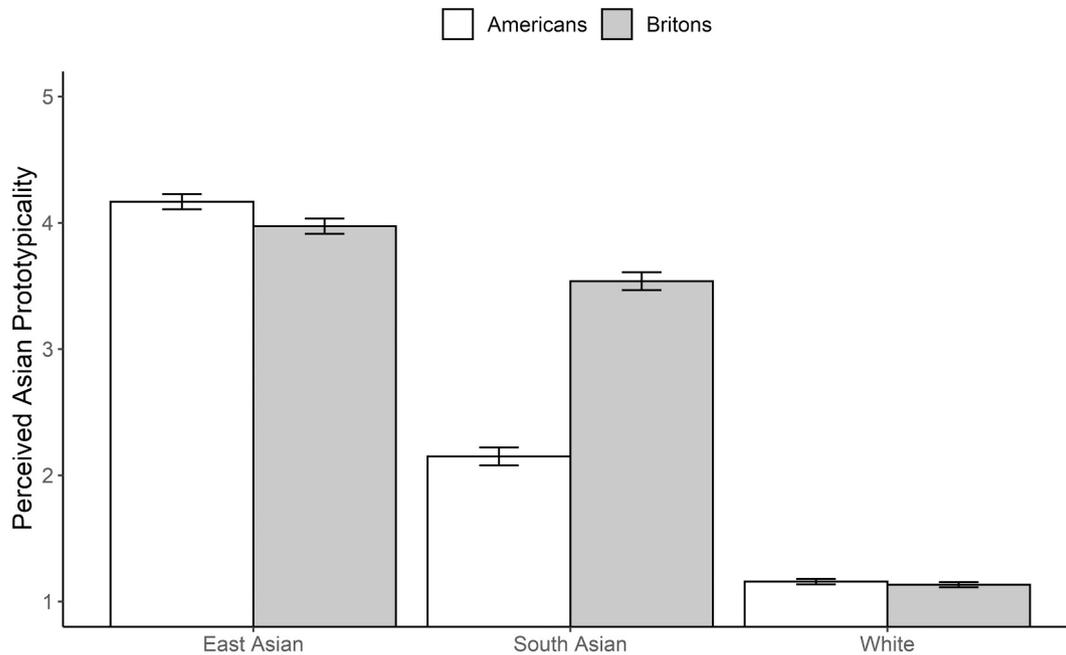–indicates that the target was not measured in that particular study.

Fig. 1. Perceived Asian prototypicality of different racial targets by Americans and British participants in Study 1.
Note. Error bars indicate standard errors.

107 Britons and 104 Americans. There were 192 White participants, 11 identified as Black, 12 Latinx, 1 Native American, and 1 unspecified.

With 211 participants, sensitivity analysis (α = 0.05, 80% power, 2 groups, 4 measures, r = 0.10, and ε = 0.671) showed the smallest effect size that could be detected is f = 0.124, η_p^2 = 0.015.

3.1.2. Procedure

All participants rated how likely they would classify a list of 12 groups as Asian Americans (for participants in the US) or Asian British (for those in the UK) using a 5-point scale (1 = *Not at all likely*; 5 = *Extremely likely*). The 12 groups were averaged into four Asian categories based on geographic regions.[4] The South Asian grouping was the averaged ratings for *Indian*, *Pakistani*, and *Bangladeshi* (α = 0.89). East Asians

were *Chinese*, *Japanese*, and *Korean* (α = 0.95). For Southeast Asian grouping, the items were *Vietnamese*, *Filipino*, and *Malaysian* (α = 0.89). Finally for West Asians, participants rated *Arab*, *Lebanese*, and *Iranian* (α = 0.90).

3.2. Results

We conducted a 2 (between-subject nationality: American and British) x 4 (within-subject targets: South Asians, East Asians, Southeast Asians, and West Asians) mixed ANOVA, with perceived Asian prototypicality as the dependent variable. Test of sphericity was significant (W = 0.45, X^2 = 165.84, p < .001, ε = 0.671), and we used Greenhouse-Geisser correction. There was a main effect of participant nationality, F(1, 209) = 15.44, p < .001, η_p^2 = 0.07, and a main effect of Asian subgroup targets, F(2.01, 420.67) = 149.47, p < .001, η_p^2 = 0.42 (see Appendix A). The predicted interaction was significant, F(2.01, 420.67) = 72.90, p < .001, η_p^2 = 0.26.

We first compared the two participant nationalities for each Asian subgroup separately (see Table 1 for descriptive statistics and Fig. 2). Britons perceived South Asians as more prototypically Asian than American participants, F(1, 209) = 18.17, p < .001, η_p^2 = 0.08; whereas Americans considered East Asians as more prototypical than British perceivers, F(1, 209) = 87.31, p < .001, η_p^2 = 0.30. Southeast Asians were

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[4] The 12 items were adapted from J. Lee and Ramakrishnan (2020), which only included Filipino for Southeast Asians and Arab for West Asians. We added items that would presumably be recognized by both Americans and Britons. Vietnamese and Malaysian were added for Southeast Asians given historical involvements of Americans in Vietnam War and British colonization of Malaysia. For West Asians, we added Lebanese (the largest Arab American group in the US) and Iranian (a non-Arab group in West Asia); both were also used in Chaney, Sanchez, & Saud, 2021 Study 4.
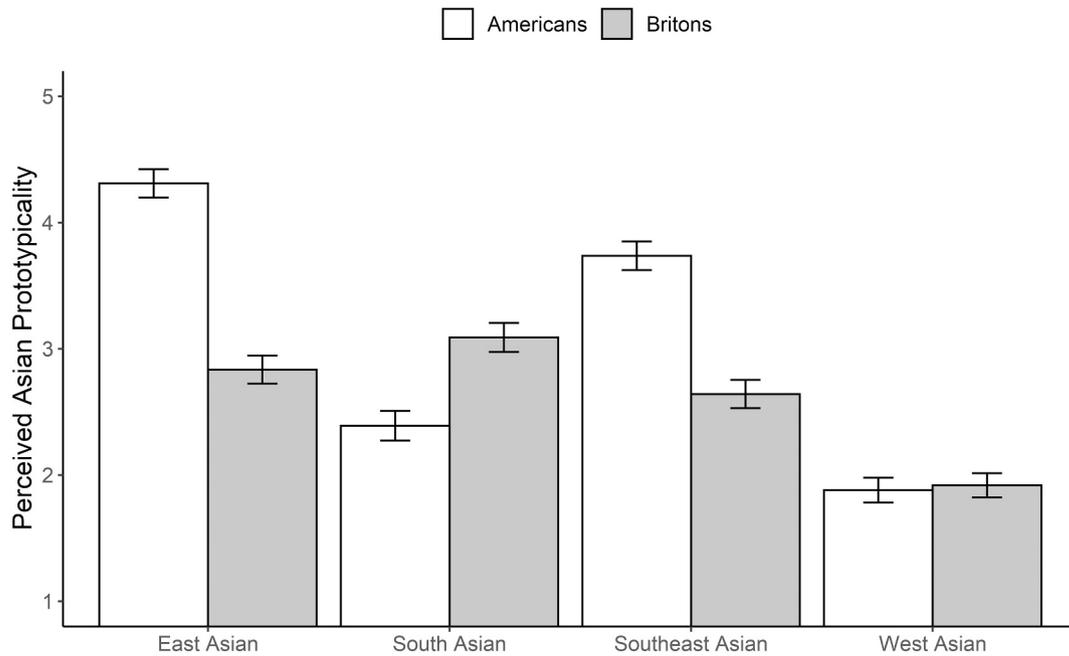
Fig. 2. Perceived Asian prototypicality of different Asian subgroups by American and British participants in Study 2.
Note. Error bars indicate standard errors.

perceived as more prototypically Asian for Americans than Britons, $F(1, 209) = 47.30$, $p < .001$, $\eta_p^2 = 0.19$. Finally, West Asians were perceived as similarly non-prototypical for both nationals, $F(1, 209) = 0.08$, $p = .784$, $\eta_p^2 = 0.00$.

We next examined how the subgroups differed within each nationality. For Americans, there was an overall significant target subgroup difference, $F(3, 207) = 110.75$, $p < .001$, $\eta_p^2 = 0.62$; all pairwise comparisons with Bonferroni correction were significant. Americans perceived East Asians as more prototypically Asian relative to Southeast Asians ($d_z = 0.77$, $p < .001$), South Asians ($d_z = 1.48$, $p < .001$), and West Asians ($d_z = 1.76$, $p < .001$). Southeast Asians were perceived to be more prototypical than South Asians ($d_z = 1.13$, $p < .001$) and West Asians ($d_z = 1.43$, $p < .001$). Finally, Americans perceived South Asians as more prototypically Asian than West Asians ($d_z = 0.68$, $p < .001$). Simply put, Americans perceived East Asians as the most prototypical Asian, followed by Southeast Asians, then South Asians, and West Asians as the least prototypical Asian.

For Britons, target subgroupings were also significantly different, $F(3, 207) = 50.42$, $p < .001$, $\eta_p^2 = 0.42$. Pairwise comparisons with Bonferroni correction showed that South and East Asians were not perceived as significantly different ($d_z = 0.17$, $p = .386$), but South Asians were more prototypical than Southeast Asians ($d_z = 0.31$, $p = .004$) and West Asians ($d_z = 0.95$, $p < .001$). East Asians were also perceived to be more prototypical than Southeast Asians ($d_z = 0.30$, $p = .026$) and West Asians ($d_z = 0.69$, $p < .001$). Finally, Britons perceived Southeast Asians as more prototypical than West Asians ($d_z = 0.59$, $p < .001$).

3.3. Discussion

Replicating Study 1, we found that Britons perceived South Asians as more prototypically Asian than Americans, but Americans perceived East Asians and Southeast Asians as more prototypical than Britons. Both groups did not differ in seeing West Asians as the least fitting of the Asian prototype. Furthermore, Americans prioritized East Asians as the prototype of Asians, and Southeast Asians were perceived as more prototypical than South Asians.

Interestingly, Britons perceived East and South Asians as similarly prototypical but both were considered more prototypical than Southeast

and West Asians. While Study 1 had found that Britons perceived East Asians as slightly more prototypical than South Asians, Study 2 did not find any differences. For British respondents, the perceived prototypicality between East and South Asians may be less distinctive than it is for Americans and we speculate more on this in the General Discussion. What is clear, however, is that Americans and Britons consistently diverged when compared directly: Americans consistently perceived East Asians as more and South Asians as less prototypically Asian relative to Britons.

4. Study 3

Studies 1 and 2 examined the prototype of the Asian racial group, and Study 3 extended these studies by examining the prototypes of the larger American and British societies. Study 3 focused on the perpetual foreigner stereotype, a potential consequence for subgroups that deviate from the prototypical group representation. Study 3 used a continuum of foreignness-citizenship as one bipolar dimension, with lower scores representing greater perceived foreignness and higher scores representing greater perceived American/ British prototypicality. Asian Americans are perceived as more foreign and less prototypically American than Black and White Americans (Devos & Banaji, 2005; Zou & Cheryan, 2017), and we built on these findings by examining the perceived foreignness of different Asian subgroups and how that may differ in the US and the UK. Participants rated 13 subgroups (12 subgroups from Study 2 and Canadian as an additional item) on the extent to which they are seen as foreign or American/ British.

We argue that prototypes are generally familiar and numerically represented within a particular culture, and groups that are less familiar or less represented historically may thus be seen as more foreign to that particular society. Furthermore, Americans' stereotypes of South and West Asians as terrorist may position these subgroups farthest from the American prototype (and viewed as foreigner), whereas the long-standing presence of South Asians in the UK may bring them closer to the British prototype. As such, we predicted that Americans would perceive greater foreignness in South Asians than Britons, but Britons would perceive greater foreignness in East and Southeast Asians than American perceivers. For subgroup differences within each nationality, American participants would perceive the greatest foreignness in the order of West

Asians, then South Asians, Southeast Asians, East Asians, and Canadian as the least foreign (or the most prototypically American group). Among Britons, West Asians would be seen as the most foreign and Canadian as the most prototypically British. Britons may perceive East and South Asians similarly given that Study 2 did not find significant differences, but both groups would be seen as less foreign than Southeast Asians.

4.1. Method

4.1.1. Participants

We set our recruitment goal to be 150 British residents and 150 American residents. This number was determined due to a large interaction effect size from Study 2 ($\eta_p^2 = 0.26$) that would ensure 80% power; we oversampled compared to Study 2 because there is an additional group rating. We set the same participant restrictions as Study 2 on the Prolific platform. A total of 300 participants were recruited, and 13 participants were excluded for responding randomly or identifying as Asians (including Middle Easterners).

Of the remaining 287 participants (174 identified as female, 109 as male, and 4 as non-binary; M age = 36.70), there were 146 Britons and 141 Americans. There were 258 White participants, 22 identified as Black, 14 Latinx, and 2 unspecified.

With 287 participants, sensitivity analysis ($\alpha = 0.05$, 80% power, 2 groups, 5 measures, $r = 0.10$, and $\varepsilon = 0.527$) showed the minimal effect size that could be detected is $f = 0.108$, $\eta_p^2 = 0.012$.

4.1.2. Procedure

Participants rated 13 target groups on their perceived foreignness and citizenship (1 = *Very foreign*; 4 = *Neutral*; 7 = *Very American/ Very British*). We used the same four Asian grouping as Study 2: South Asians (*Indian*, *Pakistani*, and *Bangladeshi*; $\alpha = 0.92$), East Asians (*Chinese*, *Japanese*, and *Korean*; $\alpha = 0.90$), Southeast Asians (*Vietnamese*, *Filipino*, and *Malaysian*; $\alpha = 0.91$), and West Asians (*Arab*, *Lebanese*, and *Iranian*; $\alpha = 0.89$). Participants also rated *Canadian* as a control group.

4.2. Results

We conducted a 2 (between-subject nationality: American and British) x 5 (within-subject targets: South Asians, East Asians, Southeast

Asians, West Asians, and Canadian) mixed ANOVA, with perceived foreignness as the dependent variable. Test of sphericity was significant ($W = 0.21$, $X^2 = 439.37$, $p < .001$, $\varepsilon = 0.527$), so we used a Greenhouse-Geisser correction. There was a main effect of nationality, $F(1, 285) = 4.72$, $p = .031$, $\eta_p^2 = 0.02$, and a main effect of target ratings, $F(2.11, 600.59) = 245.51$, $p < .001$, $\eta_p^2 = 0.46$ (see Appendix A). The main effects were qualified by an interaction, $F(2.11, 600.59) = 37.64$, $p < .001$, $\eta_p^2 = 0.12$.

We first directly compared Americans and Britons for each target group separately (see Table 1 and Fig. 3). All comparisons were significant except for West Asians. Britons perceived South Asians to be less foreign than Americans, $F(1, 285) = 12.13$, $p = .001$, $\eta_p^2 = 0.04$; whereas Americans perceived East Asians to be less foreign than Britons, $F(1, 285) = 7.65$, $p = .006$, $\eta_p^2 = 0.03$. Southeast Asians were perceived as less foreign for Americans relative to Britons, $F(1, 285) = 7.34$, $p = .007$, $\eta_p^2 = 0.03$. West Asians were perceived as similarly foreign for both nationals, $F(1, 285) = 0.001$, $p = .976$, $\eta_p^2 = 0.00$. Finally, Americans perceived Canadian to be less foreign than Britons, $F(1, 285) = 37.97$, $p < .001$, $\eta_p^2 = 0.12$.

We next examined the simple effects separately by nationality (see Table 1 for descriptive statistics). For Americans, there was a significant overall target effect, $F(4, 282) = 84.22$, $p < .001$, $\eta_p^2 = 0.54$. Pairwise comparisons with Bonferroni corrections showed that Canadians were unsurprisingly perceived as more prototypically American and less foreign than all Asian subgroups (d East Asian = 1.20, d South Asian = 1.45, d Southeast Asian = 1.30, d West Asian = 1.47; all $ps < 0.001$). Americans did not differentiate between East and Southeast Asians ($d_z = 0.15$, $p = .476$). Americans perceived East Asians as less foreign than South Asians ($d_z = 0.51$, $p < .001$) and West Asians ($d_z = 0.50$, $p < .001$). Southeast Asians were also considered to be less foreign than South Asians ($d_z = 0.42$, $p = .008$) and West Asians ($d_z = 0.46$, $p < .001$). Finally, South Asians and West Asians were perceived to be similarly foreign and un-American ($d_z = 0.19$, $p = .835$).

For Britons, target subgroupings were significantly different overall, $F(4, 282) = 58.17$, $p < .001$, $\eta_p^2 = 0.45$. Pairwise comparisons with Bonferroni correction showed that first, Canadians were perceived as more prototypically British and less foreign than all Asian subgroups (d East Asian = 0.88, d South Asian = 0.39, d Southeast Asian = 1.02, d West Asian = 0.88; all $ps < 0.001$). South Asians were considered more prototypically
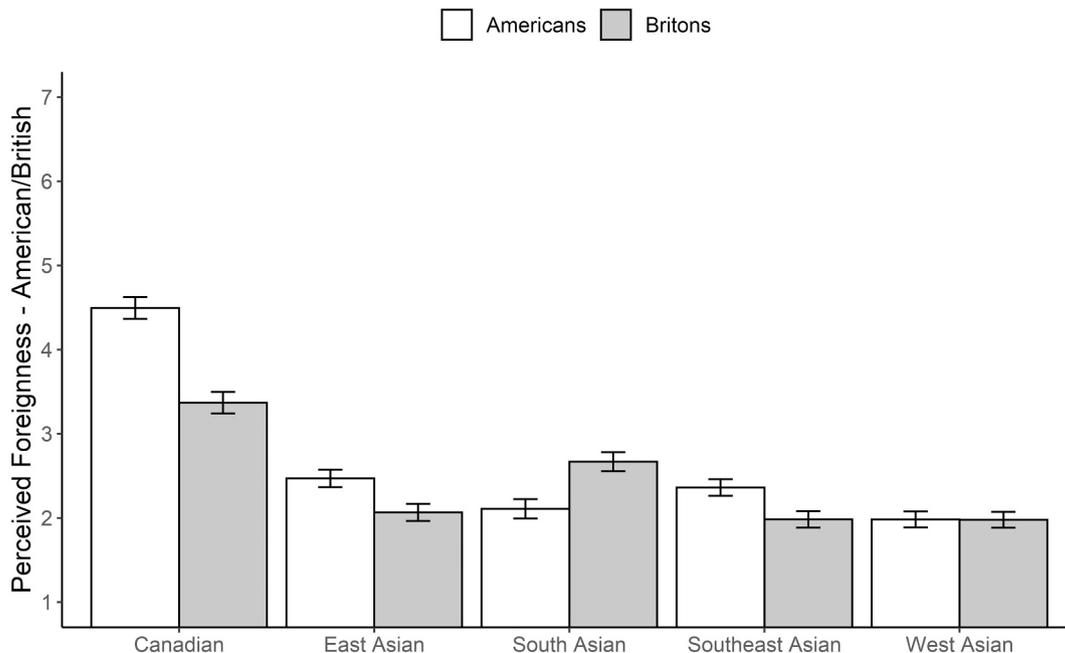

Fig. 3. Perceived foreignness of different Asian subgroups by American and British participants in study 3.
Note. Scale anchors are 1 = Very Foreign, 4 = Neutral, 7 = Very American/ British. Error bars indicate standard errors.

British and less foreign than all other Asian subgroups ($d_{East Asian} = 0.55$, $d_{Southeast Asian} = 0.63$, $d_{West Asian} = 0.68$; all $ps < 0.001$). The remaining three groups (i.e., East, Southeast, and West Asians) did not differ in their perceived foreignness ($d_{East Asian vs. Southeast Asian} = 0.15$, $d_{East Asian vs. West Asian} = 0.13$, $d_{Southeast Asian vs. West Asian} = 0.01$, all $ps = 1.000$).

4.3. Discussion

Study 3 extended the first two studies by examining the prototype and foreigner of a broader society rather than a specific racial group. Unsurprisingly, Canadians were seen as the least foreign and the most British/ American prototype; Americans considered Canadians to be less foreign than Britons likely because of close geographic and political relations between the two North American countries. Britons perceived South Asians as less foreign than Americans, but Americans considered East and Southeast Asians to be less foreign than Britons. West Asians were perceived to be the most foreign by both Britons and Americans.

For Britons, South Asians were seen as the least foreign Asian subgroup; however, Americans perceived South Asians to be in the polar opposite as they were seen as the most foreign (alongside West Asians). Because South Asian British have a longstanding historical and numeric presence in the UK, they are simultaneously perceived to be somewhat more prototypically Asian and British than other Asian subgroups. Their American counterparts, in contrast, have historically been less represented culturally and numerically in the US, and more recent history stereotypes them and West Asians as dangerous terrorists. Nonetheless, it is important to note that Americans and Britons perceived *all* Asians to be fairly foreign (all ratings were less than 3 on a 7-point scale, with 1 = *Very Foreign*).

By considering the histories of the Asian diaspora, disaggregating the heterogeneous Asian subgroups allows for a more nuanced understanding of the perpetual foreigner stereotype in two separate countries. Asians are broadly stereotyped as foreigners, and we showed that divergence from the Asian prototype may cast certain subgroups as more foreign than others.

5. General discussion

We theorized that non-Asian Americans and Britons would diverge in how they perceive the prototypicality of Asian subgroups, and this divergence in prototypicality would reflect the historical salience of different Asian subgroups in the US and the UK. Asian American history predominantly concerned East Asians, but Asian migration in the UK largely centered on South Asians. This was empirically confirmed in three studies. Americans perceived East Asians to be more prototypically Asian and less foreign than Britons; whereas, Britons perceived South Asians to be more prototypically Asian and less foreign than Americans. Among Americans, East Asians were consistently considered to be more prototypically Asian and less foreign than South Asians. Although Britons considered both East and South Asians to be prototypically Asian, South Asians were prioritized over all subgroups as the least foreign group in the UK.

Studies 2 and 3 further included Southeast Asians. Although both the US and the UK had colonized different parts of Southeast Asia (Americans in the Philippines and the British in Malaysia), Americans were much more intensely involved in recent history due to the Vietnam War and CIA activities in Laos and Cambodia, which brought large number of refugees into the US between 1950s and 1970s (E. Lee, 2015). Accordingly, Americans and Britons would likely diverge in their perceptions of Southeast Asians. Indeed, we found that Americans perceived Southeast Asians to be more prototypically Asian and less foreign when compared to British participants. Americans further perceived Southeast Asians as more prototypically Asian and less foreign than South Asians, but the reverse was found for British participants.

Moreover, we examined how West Asians compared to other more recognizable Asian subgroups. Geographically, West Asia is part of the

Asian continent and encompasses several Arab and Middle Eastern countries. Middle Easterners are considered as White on the US Census but they are not necessarily perceived as such (Chaney, Sanchez, & Saud, 2021). On the UK Census, there is a separate category for Arab (Office for National Statistics, 2020). West Asians thus elude uniform categorization across countries. We found that Americans and Britons did not differ in their perceptions of West Asians as non-prototypical Asians and as the most foreign subgroup. Interesting differences emerged when examining relative differences to South Asians. For Britons, South Asians were considered to be more British and less foreign than West Asians; in contrast, Americans perceived West and South Asians to be similarly foreign and more so than all other Asian subgroups. In the aftermath of the September 11 terrorist attack, South and West Asians were disproportionately targeted by hate crimes and placed under greater scrutiny and surveillance by the American government (Cainkar, 2018; Zopf, 2018). South Asians, Middle Easterners, and Arabs are racialized as an indistinguishable, ambiguous, and dangerous subgroup that seems to be distinct from the Asian label in the US (Cainkar, 2018; Zopf, 2018). American participants not only perceived South Asians and West Asians to be less prototypically Asian and more foreign than other subgroups, but both subgroups may even be deemed as un-American.

5.1. Implications

This research advances social psychology by demonstrating the need to disaggregate Asian subgroups. Race is a social construction (Okamoto, 2014; Richeson & Sommers, 2016), as exemplified by the divergence in how Americans and Britons use the Asian label to determine prototypicality. Who counts as Asian in one country does not generalize to another. Disaggregating Asian subgroups in separate cultural contexts allows us to see who comes to mind when the label is used, and this holds implications for advancing social psychology. For instance, stereotype and attitude research often asks participants to rate their impressions of broad racial groups such as Black people and Asians. In such instance, Americans' attitudes toward Asians may not be comparable to British respondents given that they could be interpreting the Asian category differently.

Asian subgroups are not always perceived and treated in the same manner. For instance, South Asians report more workplace discriminations than East Asians, but South Asians are perceived to be more assertive and therefore more likely to be promoted than East Asians (Lu, Nisbett, & Morris, 2020). Arab Americans are stereotyped as more inferior and more foreign than the broader Asian category (Zou & Cheryan, 2017), and our results extended this by showing that South Asians are perceived more similarly to West Asians (including Arabs and Middle Easterners) than the prototypical East Asians in the US but not the UK.

Disaggregation allows us to see that Asian subgroups are not uniformly perceived or discriminated within and between countries. Practically, researchers can start by specifying different Asian subgroups such as having separate ratings for South, Southeast, and East Asian targets. Most face databases often only include East Asian stimuli and investment in more diverse Asian stimuli can pave the way for many fruitful research directions. Disaggregation can further elucidate the many barriers that Asian subgroups differentially face in education (Dhingra, 2020; J. Lee & Zhou, 2015), labor market (Lu, Nisbett, & Morris, 2020; Zwick-Maitreyi, Soundararajan, Dar, Bheel, & Balakrishnan, 2018), mental health (Choi, Park, Noh, Lee, & Takeuchi, 2020; David & Nadal, 2013), and more.

5.2. Alternative explanations

This research is built on the premise that historical events and immigration patterns could drive people's social prototypes. However, other perspectives could likely explain the results in our studies as well.

Alternative explanations include colorism, current numeracy, and familiarity.

Study 1 used photographs to examine the perceived prototypicality of East and South Asians. Interestingly, we found that even for British participants, East Asian faces were perceived to be more prototypically Asian than South Asian faces, albeit to a much smaller extent than American participants ($d_{British} = 0.41$ vs $d_{American} = 1.90$). It is plausible then that colorism may be driving our findings because people associate "yellow" light-skin tone as a more prototypically Asian feature than "Brown" dark-skin tone (Kuo, Kraus, & Richeson, 2020; Thangaraj, 2015). Although Ma et al. (2018) did not find skin tone to predict the perceived prototypicality of Asian faces above and beyond eye and nose shapes, they used the Chicago Face Database that is mostly consisted of East Asian faces. In the US, "Brown" people (usually associated with South and West Asians) exist outside the Black-White racial binary and Americans may have difficulty identifying Asians with darker skin-tone. Instead, these "Brown" bodies are racialized into what Naber (2000) refers to as a conflation of "Arab-Middle Eastern-Muslim" group. Colorism may even explain why in the absence of facial photographs in Study 2, British participants no longer considered East Asians to be more prototypical than South Asians. However, colorism alone is insufficient to explain all our findings, particularly in relation to the West Asian category for British participants: Americans did not differentiate the extreme foreignness between South and West Asians, whereas Britons perceived South Asians to be significantly less foreign than West Asians. If "Brown" Asians are judged indistinguishably based on skin tone, then there should not be perceptual differences even for Britons. But it seems that at least for British perceivers, colorism may not be the sole determinant of prototypicality.

The current population size of different subgroups may also explain why Americans and Britons differ in who they consider to be the prototypical Asian. Prototypes are certainly shaped by how often the group is encountered and a larger numerical representation can lead one group to be seen as more prototypical (Dotsch et al., 2016). However, South Asian Americans have been growing in size since the passing of the Immigration and Nationality Act of 1965, and currently, 4.6 million Indian Americans and immigrants represent the second biggest Asian subgroup in the US and it is projected that they will surpass Chinese Americans soon (Pew Research Center, 2021). If prototypes are determined firmly by current numeric representation, then we should not expect a large discrepancy between East and South Asians for American participants since both groups are fairly well-represented numerically at the moment. Yet we consistently observed robust and large effect sizes that favored East Asians over South Asians in the US samples ($d_{Study 1} = 1.90$ and $d_{Study 2} = 1.48$). Despite Indian Americans' current numeracy, Americans still positioned them as less prototypically Asian and more foreign than East and Southeast Asians. As such, current numeracy cannot sufficiently address our findings, at least for the American participants during this time.

Prototypes are more easily accessible in cognitive representation because they are more familiar and recognizable (Rosch, 1978). Perceived prototypicality could be determined by how familiar they are to the people within that particular society. Americans may be more familiar with East and Southeast Asians than South Asians, and that may explain why South Asians are consistently perceived to be less prototypically Asian and more foreign among American participants. Likewise, Britons may be more familiar with South Asians than Southeast Asians and that is why South Asians are perceived to be more prototypically Asian and less foreign.

In short, we think these three accounts can explain our findings to a certain extent. But instead of seeing these alternatives as antithetical to our sociohistorical approach, we argue that history can actually augment these explanations. Numeracy of any immigrant group is determined by their historical exclusions and inclusions through various immigration policies. For instance prior to early 1960s, a quota system only allowed for 100 Indians to enter the US annually (and entirely banned prior to 1946) which undoubtedly inhibited their numeric growth, whereas South Asians could unrestrictedly enter the UK and thus build their numeric presence (Hansen, 2000; Hong, 2019). Longer historical presence can simultaneously breed familiarity because there are logically more time and opportunities for the group to be socially integrated into the host culture by various means such as labor, media, and cuisines. Through time, repeated engagement, and cultural integration, people can become more familiar with one Asian subgroup over another and consequently perceived them as less foreign (Devos, Sadler, Perry, & Yogeeswaran, 2021). As a result, people may also develop greater sensitivity in categorizing and identifying particular social groups based on phenotypes and reduce their perceived foreignness. Certain skin tone may even be considered desirable or undesirable depending on the historical contexts in which these phenotypes are presented. The September 11 terrorist attack scarred the American society and all "Brown" people were indistinguishably categorized as un-American (Cainkar, 2018), but the enduring presence of South Asians in the UK could have shielded them from this stereotype to a certain extent. By taking an integrative sociohistorical approach, we can understand the perceived prototypicality of Asians in a more nuanced and critical manner.

5.3. Limitations and future directions

This research is limited and can be extended in several manners. First, Studies 1 and 2 used different methods and could be potentially asking different research questions. While Study 1 asked participants to classify each facial target as "Asian," Study 2 participants classified a list of subgroups as "Asian American/ British." In both studies, British participants did consistently perceive South Asians as more and East Asians as less prototypical than Americans. The only inconsistency is that British participants perceived East Asians as more prototypically Asian than South Asians in Study 1 and did not significantly differentiate the two subgroups in Study 2. This is counter to our prediction that the historical presence of South Asian British would position them as the main prototype for the UK samples. However, the unexpected effects for our British participants could be explained by a confluence of methodological changes such as the comparison groups used in both studies and the choice of target stimuli. Another explanation may be that we underestimated the historical contributions of East Asians in the UK. Despite their low numeracy (historically and currently), East Asian British have contributed greatly to the British society (for a review, see Benton & Gomez, 2008), and they may thus be seen as equally deserving of the Asian label as South Asian British. The Americans' prioritization of East Asians could also have been culturally transported to the UK via media export and thus helped shape Britons' prototypes. All studies were also conducted during the COVID-19 pandemic that was associated with an outbreak from China, and this may make Chinese and East Asians particularly salient and position them closer to the Asian prototype for Britons. Future research should carefully examine British participants' prototypes in a more systematic and incremental manner.

Prototypical targets are usually more likely to be stereotyped and discriminated against than non-prototypical targets (Kaiser & Wilkins, 2010; Maddox, 2004). But across both cultural contexts, Study 3 found that the most prototypical Asian is also stereotyped to be the least foreign. One explanation is the role of familiarity as explicated above. Prototypical targets are historically more integrated into a society and this allows for familiarity to be developed. Prototypical targets are also seen as more trustworthy (Sofer, Dotsch, Wigboldus, & Todorov, 2015), which could reduce their perceived foreignness. Extant research on the prototypicality-stereotype link focused primarily on the perceived prototypicality of Black men and the stereotypes of criminality and aggression (Eberhardt, Davies, Purdie-Vaughns, & Lynn Johnson, 2006; Maddox, 2004), which are qualitatively different from the perpetual foreigner stereotype. Additionally, Americans and Britons could be relying on entirely different processes. For Americans, South and West

Asians could be perceived as the prototypical and stereotypical terrorists and they are stereotyped to be more foreign as a result. As such, Study 3 may not actually be connecting the prototype of Asians to the foreignness stereotype. Future research should study this prototype-stereotype connection more directly.

Gender of the targets was not considered in Studies 2 and 3 but previous literature did not find gender differences in perceived foreignness (Zou & Cheryan, 2017). Exploratory analyses in Study 1 (see OSF) showed Britons were much more likely to label South Asian men and women as Asian compared to Americans, and Americans were more likely to perceive East Asian men as Asian than Britons (no national differences for East Asian women). These exploratory analyses did not find shifts in perceived prototypicality between Asian subgroups. Nonetheless, future research should closely examine the intersection of Asian subgroups and gender to examine perceived prototypicality or generalizability of various stereotypes.

We categorized Asian subgroups based on their geographic national origins. Although such groupings showed strong internal reliability and consistency in ratings, each subgroup is also extremely diverse in terms of history, language, religion, social class, skin tone, and more. For instance among Southeast Asians and South Asians, there are considerable variations in skin tones depending on ethnic and caste backgrounds and these variations may lead to very different perceived prototypicality even within one subgroup (Zwick-Maitreyi, Soundararajan, Dar, Bheel, & Balakrishnan, 2018). Though our studies represent one of the few research on this burgeoning topic, further disaggregation is still necessary to truly understand the diversity of the Asian diasporas in the US and the UK.

Our studies focused on non-Asian perceivers and future research should examine how various Asian subgroups perceived their own and other Asians' prototypicality. Although all Asian Americans considered their own groups to be Asians, East and Southeast Asians are more likely to exclude South Asians from the label (J. Lee & Ramakrishnan, 2020; Park, 2008). It is unclear how Asian British would perceive the prototypicality of various Asian subgroups in the UK relative to their own group, but most Asian British subgroups would likely recognize the South Asian default given that prototypes are widely shared and acknowledged by people within the same cultural context (Kawakami et al., 2020; Turner et al., 1987).

Finally, we theorized that prototypes are informed by history but we did not examine *how* history steeps into our mental representations. Children are able to develop complex intersectional prototypes as early as 5 years old (Lei et al., 2020). Our understanding of racial groups is learned early because race and racism are infused within the structures of societies (Ray, 2019; Salter, Adams, & Perez, 2018). Certain aspects of history regarding race are highlighted or downplayed in formal education (Salter et al., 2018). Media further legitimize which social groups are deserving of representation (Roberts & Rizzo, 2021; Yuen, 2016). Through all these formal and informal learnings that spotlight or minimize certain groups over others, people can come to construct these prototypical imageries (Fryberg & Eason, 2017; Lei & Rhodes, 2021). Although we cannot definitively conclude that historical contexts caused such divergent prototypes of Asians in the UK and US, history nevertheless provides a rich perspective into social psychological theories (Gergen, 1973; Muthukrishna et al., 2021; Trawalter et al., 2020).

6. Conclusion

The pan-Asian movement coined the "Asian American" label in order to coalesce and advocate for the diverse Asian communities (Okamoto, 2014). Yet over time, the Asian American label has shifted to be primarily associated with East Asians in the US likely due to their historical dominance in the US (J. Lee & Ramakrishnan, 2020). In contrast, South Asian British are perceived to be prototypical Asians and citizens due to their longstanding presence in the UK. Although the US and the UK are considered culturally and psychologically similar (Muthukrishna et al.,

2020), their apparent historical differences are reflected in their prototypical representations across all three studies. These historical differences may hold implications for other social cognitive and perceptual processes as well. Asian Americans and Asian British are sizeable and growing minorities. However, this monolithic categorization belies the incredibly diverse Asian communities that are not similarly perceived, and each Asian subgroup carries its own unique history that needs to be recognized.

Open practices

All three studies were pre-registered, with open data and materials. All data, material, and pre-registration forms are provided at the following Open Science Framework link: https://osf.io/rksmu/?view_only=a9ff497849a542398e0a72fdbb3e0be0

Appendix A. Main effects in Studies 1–3

A.1. Study 1

We conducted a 2 (between-subject nationality: American and British) x 3 (within-subject targets: South Asians, East Asians, and Whites) ANOVA with perceived Asian prototypicality as the dependent measure. There was a main effect of participant nationality, $F(1, 349) = 59.49$, $p < .001$, $\eta_p^2 = 0.15$, with British nationals providing all targets with higher ratings ($M = 2.88$, $SE = 0.04$) than Americans ($M = 2.49$, $SE = 0.04$). Second, there was a significant main effect of targets, $F(1.89, 659.24) = 1664.60$, $p < .001$, $\eta_p^2 = 0.83$. Pairwise comparisons with a Bonferroni correction showed significant differences among all three groups: East Asians overall were perceived as more likely to be Asian ($M = 4.07$, $SD = 0.80$) compared to South Asians ($M = 2.85$, $SD = 1.16$; $d_z = 0.93$, $p < .001$) and Whites ($M = 1.15$, $SD = 0.28$; $d_z = 3.30$, $p < .001$), and South Asians were seen as more prototypical than White targets ($d_z = 1.48$, $p < .001$).

A.2. Study 2

We conducted a 2 (between-subject nationality: American and British) x 4 (within-subject targets: South Asians, East Asians, Southeast Asians, and West Asians) mixed ANOVA, with perceived Asian prototypicality as dependent variable. There was a main effect of nationality with Americans ($M = 3.08$, $SE = 0.08$) providing overall higher ratings than Britons ($M = 2.62$, $SE = 0.08$), $F(1, 209) = 15.44$, $p < .001$, $\eta_p^2 = 0.07$. There was a main effect of Asian targets, $F(2.01, 420.67) = 149.47$, $p < .001$, $\eta_p^2 = 0.42$. Pairwise comparisons with Bonferroni correction showed all four subgroups differed significantly from one another with perceived prototypicality in the order of East Asians ($M = 3.56$; $SD = 1.36$), Southeast Asians ($M = 3.18$; $SD = 1.28$), South Asians ($M = 2.75$; $SD = 1.24$), and West Asians as the least prototypical ($M = 1.90$; $SD = 0.99$). More precisely, East Asians were considered more prototypical than Southeast Asians ($d_z = 0.53$, $p < .001$), South Asians ($d_z = 0.46$, $p < .001$), and West Asians ($d_z = 1.07$, $p < .001$). Southeast Asians were perceived as more prototypical than South Asians ($d_z = 0.27$, $p < .001$) and West Asians ($d_z = 0.93$, $p < .001$). Finally, participants perceived South Asians to be more prototypically Asian than West Asians ($d_z = 0.78$, $p < .001$).

A.3. Study 3

We conducted a 2 (between-subject nationality: American and

British) x 5 (within-subject targets: South Asians, East Asians, Southeast Asians, West Asians, and Canadian) mixed ANOVA, with perceived foreignness as dependent variable (lower values indicate greater foreignness and higher values indicate more prototypically American/British). There was a main effect of nationality with Americans ($M = 2.68$, $SE = 0.09$) providing overall higher ratings than Britons ($M = 2.41$, $SE = 0.09$), $F(1, 285) = 4.72$, $p = .031$, $\eta_p^2 = 0.02$.

There was a main effect of target ratings, $F(2.11, 600.59) = 245.51$, $p < .001$, $\eta_p^2 = 0.46$. Pairwise comparisons with Bonferroni correction showed that Canadian ($M = 3.92$, $SD = 1.65$) was rated as less foreign and more prototypically British/American than all four Asian ethnic groups ($d_{\text{East Asian}} = 1.21$, $d_{\text{South Asian}} = 1.02$, $d_{\text{Southeast Asian}} = 1.31$, $d_{\text{West Asian}} = 1.32$; all $ps < 0.001$). On the other end, West Asians ($M = 1.98$, $SD = 1.13$) were seen as more foreign than all other Asian subgroups ($d_{\text{East Asian}} = 0.23$, $d_{\text{South Asian}} = 0.35$, $d_{\text{Southeast Asian}} = 0.15$; all $ps < 0.001$). Overall, South Asians ($M = 2.39$, $SD = 1.39$) did not differ from East Asians ($M = 2.26$, $SD = 1.25$), $d_z = 0.00$, $p = .285$, but South Asians were perceived as significantly less foreign than Southeast Asians ($M = 2.17$, $SD = 1.19$), $d_z = 0.11$, $p < .001$. East and Southeast Asians did not differ significantly, $d_z = 0.07$, $p = .133$.

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