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Context Clues: How Local Demographics and Language Barriers Shape Group Attitudes

Author

Rossell Hayes, Alexander Michael

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Context Clues: How Local Demographics and Language Barriers Shape Group Attitudes

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ABSTRACT OF THE DISSERTATION

Context Clues: How Local Demographics and
Language Barriers Shape Group Attitudes

by

Alexander Michael Rossell Hayes
Doctor of Philosophy in Political Science
University of California, Los Angeles, 2024
Professor Natalie Remi Masuoka, Chair

Does living near members of another social group breed tolerance or hostility? This is a long-standing question in political science, with evidence pointing in multiple directions. While experiments confirm that intergroup contact can promote positive attitudes, observational studies show that real-world conditions often fail to produce positive outcomes.

In this dissertation, I examine factors that determine how outgroup context shapes group attitudes. I analyze survey responses describing individuals' interactions with and opinions about various social groups. By combining these responses with census data about the demographic contexts in which respondents live, I can determine how contextual factors shape different components of outgroup attitudes.

Through this analysis, I find that living near members of an outgroup is associated both with an increased probability of interacting with outgroup members, and with an increased perception of group threat. These in turn

shapes outgroup stereotypes: contact challenges negative stereotypes, while threat reinforces them. Finally, these stereotypes inform an overall positive or negative outgroup attitude.

This leaves the question of whether the positive effects of contact or the negative effects of threat will dominate. I find that engaging in frequent contact with outgroup members can overcome the negative effects of threat. Contextual factors determine when contact will be common and promote tolerance, and when it will be uncommon and allow threat to produce hostility. Previous studies have highlighted the role of segregation in reducing opportunities for contact, but I introduce another factor: language. Living near English-speaking outgroup members provides English monolinguals with more opportunities for contact, leading to more positive attitudes, while living near non-English-speaking outgroup populations reinforces negative stereotypes, leading to more negative attitudes.

These contextual effects of language are not limited to outgroup attitudes. I find that English-monolingual ingroup members similarly exhibit less ingroup identification and more negative ingroup attitudes when living in contexts where many ingroup members do not speak English.

The dissertation of Alexander Michael Rossell Hayes is approved.

Matthew Alejandro Barreto

Lorrie Frasure

Efrén Osvaldo Pérez

Natalie Remi Masuoka, Committee Chair

University of California, Los Angeles

2024

To Flavia, my best friend and partner

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Chapter 1

INTRODUCTION

One of the critical questions in racial and ethnic politics is the source of intergroup attitudes, such as opinions towards racial groups or immigrants. One well-studied explanation for these attitudes is intergroup contact. Starting with Allport (1954) scholars have argued that experiencing positive interactions with members of other groups can foster tolerance. Experiments have supported both theories by inducing contact between members of different groups and measuring how these interactions change their opinions. Many laboratory studies have focused on creating positive intergroup attitudes by asking participants of different groups to interact with one another (for reviews, see Pettigrew and Tropp 2000; Pettigrew et al. 2011). These experiments show that interacting with an outgroup member under the right conditions can cause subjects to report more positive attitudes toward that group.

Conversely, another literature, beginning with Blumer (1958) and Blalock (1967), argues that living near members of other social groups creates opportunities for conflict and a perception of threat. Theories of group threat have been used to explain countless cases of hostility between neighboring groups and backlash to migration.

These two theoretical traditions present a dilemma: outside of controlled experimental conditions, proximity between groups is a prerequisite

for intergroup contact. If contact breeds tolerance, but proximity breeds hostility, which effect will dominate when groups live near one another?

The key to this question is to recognize that while proximity between groups increases the *opportunity* for intergroup contact, it does not guarantee it. In the real world, people may, and often do, choose not to interact with members of outgroups. Moreover, even those willing to interact with outgroup members may be prevented. Intergroup contact can be impeded by a myriad of factors. Geographic and social segregation may mean that groups that live in close physical proximity do not actually have opportunities to interact. Impediments to intergroup communication may mean that interactions are superficial and ineffective in fostering attitude change. Even factors as simple as time constraints or psychological predispositions like introversion can impede interactions or limit contact to a superficial level.

This dissertation examines how outgroup context affects both intergroup contact and group threat, and how these in turn influence group attitudes. I explore the role of stereotypes, which I argue are directly shaped by contact and threat and go on to shape affective group attitudes. I then explore how features of outgroup contexts can help us predict which contexts are more likely to foster intergroup contact that dispels negative stereotypes, and which are more likely to trigger group threat and reinforce stereotypes.

I define an outgroup context as the geographic and demographic features of an outgroup population around an individual. Features like the size, proximity, and geographic distribution of outgroup populations and the demographic composition of outgroup members define an individual's outgroup context. To illustrate this, imagine a Black American. This individual will

have a racial ingroup context, defined by their proximate Black population, and several racial outgroup contexts, such as their Asian outgroup context, Latino outgroup context, and white outgroup context. As an example, their Asian outgroup context will be defined by spatial features, such as how many Asian Americans live in their surroundings and whether the Black and Asian populations in their area are integrated and segregated, as well as demographic factors, such as how many proximate Asian Americans have limited English proficiency.

I define a group attitude as an attitude held by an individual towards a group as a whole. These can be divided into intergroup attitudes, which are attitudes held by individuals towards outgroups, and intragroup attitudes, which apply to ingroups. Group attitudes may be measured with self-reported tools like feeling thermometers and Likert scales. I argue that group attitudes are shaped by stereotypes that individuals hold about groups. Stereotypes are frequently inherited from dominant cultures, but may be influenced by both positive contact, interactions with a group member that dispel negative stereotypes, and group threat, which may reinforce negative stereotypes.

Features of outgroup contexts like the proximity and size of an outgroup are necessary, but not sufficient, for positive intergroup contact.[1] Other features of individuals' outgroup contexts may make intergroup contact more difficult or less desirable. In fact, Enos (2017) suggests that increases in the size and proximity of an outgroup, without changes to other aspects of the outgroup context, are associated with greater intergroup hostility. Intergroup anxiety increases as the size and proximity of the outgroup population

[1] Although future research may examine the possibility of contact occurring without physical proximity, such as through online interactions.

increases; absent the effects of contact, an individual who lives close to a large outgroup population should hold more negative attitudes towards that outgroup (Enos 2017).

Increases in intergroup anxiety can be counterbalanced by positive intergroup contact (Stephan and Stephan 1985; Voci and Hewstone 2003), but only if other factors of outgroup context make contact feasible. Enos (2017) shows that there are more opportunities for positive contact in populations with greater geographic integration, while segregation is associated with greater intergroup anxiety. In this dissertation, I propose that language barriers can function similarly to segregation, even if groups are geographically integrated. When members of different groups do not share a common language, it is challenging to engage in positive contact even if there are no other barriers to interaction. Further, I argue that because many group stereotypes are rooted in ideas about language (Rosa and Flores 2017), interactions with non-English-speakers may serve to reinforce English speakers' negative stereotypes about groups – even about group members that do not speak a non-English language.

OUTLINE

This dissertation examines how demographic context affects group attitudes and proposes factors that can shape whether context will lead to the development of more positive or more negative group attitudes. Chapter 2 explores the existing literature on outgroup context. I examine the (sometimes contradictory) theories of intergroup contact and group threat. I also examine existing studies on how language barriers affect intergroup politics.

Chapter 3 synthesizes these theories into a theoretical pathway to show how outgroup context influences group attitudes. I argue that outgroup context is associated with two opposing forces, by increasing both opportunities for intergroup contact and perceptions of group threat. Each of these phenomena, in turn, influence group stereotypes: group threat motivates the adoption of negative stereotypes and intergroup contact provides opportunities to dispel them. Finally, group stereotypes shape affective group attitudes, with those holding more negative stereotypes forming more negative overall opinions of outgroups. I test this theory by analyzing responses to an original survey project measuring group evaluations and intergroup contact alongside demographic data about respondents' demographic contexts. This analysis provides evidence to support the predicted effects of outgroup context.

Chapter 4 examines the potential of language as one explanation for why outgroup context's outcomes are dominated by the positive effects of intergroup contact in some instances and by the negative effects of group threat in others. I propose that language can serve as a barrier to intergroup contact, leaving the effects of group threat unchecked. Further, I argue that language barriers may reinforce many of the dominant stereotypes about Latino and Asian Americans, leading English-speaking outgroup members to form more negative evaluations of these groups. I analyze data from an original survey project and from the Democracy Fund + UCLA Nationscape survey to show that the linguistic and demographic features of English speakers' outgroup contexts shape attitudes towards Asian Americans, Latinos, and immigrants. Those in contexts with more non-English-speaking outgroup members endorsing more negative stereotypes and adopting more negative

outgroup attitudes, while those in contexts with more English-speaking outgroup members are more likely to reject negative stereotypes and express more positive attitudes.

Chapter 5 explores whether the effects of linguistic context on group attitudes may also apply to ingroup evaluations. I propose that English-monolingual Asian and Latino Americans may express less ingroup identification and more negative ingroup attitudes in contexts where they experience language barriers with more members of their racial ingroup. In an analysis of data from the Nationscape survey, I show that English-monolingual Asian and Latino Americans hold more negative ingroup attitudes in contexts with more non-English-speaking racial ingroup members, while in an analysis of data from the 2020 Collaborative Multiracial Post-Election Survey, I show that English-speaking Asian and Latino Americans have more social relationships with racial ingroup members and feel more racial linked fate in contexts with more English-speaking racial ingroup members. Finally, I conduct a preliminary analysis of data from the National Asian American Survey to show that language barriers may shape panethnic ingroup identification and national origin ingroup identification differently.

Chapter 6 concludes this project with a summary of the findings of each chapter and directions for future research.

Chapter 2

LITERATURE REVIEW

This project synthesizes theories about demographic context, intergroup contact, and group threat, to explain how proximity to members of different groups can shape attitudes. First, I review studies on outgroup context to establish that context is associated with two contrasting phenomena: threat and contact. Second, I examine the foundations of group threat theory, to understand how contextual factors can increase a perception of threat. Third, I explore the literature on intergroup contact theory to glean insights about when contact is likely to occur and what forms of contact are likely to positively influence attitudes. Finally, I explore the literature on language barriers, to build a theory that language may be one factor that differentiates contexts where the positive effects of intergroup contact overwhelm the negative effects of group threat from those where they do not.

CONTEXT

Racial attitudes can be best explained by considering both individual and contextual factors (Bobo and Fox 2003). Numerous scholars have asserted that proximity between groups can lay the groundwork for intergroup competition, threat, and prejudice (Blalock 1967; Blumer 1958; Enos 2017; Williams 1947). On the other hand, a literature beginning with Allport (1954) asserts that contact between groups can decrease prejudice. Tausch, Kenworthy, and Hewstone (2005) find that contact can reduce intergroup hostility even in

situations as intense as war. Thus, contact can be the difference between intergroup harmony and discord.

Enos (2017) argues that the geographic distribution of social groups can affect determine whether the effects of contact or group threat dominate, highlighting three factors associated with increased intergroup hostility: proximity, size, and segregation. The proximity and size of an outgroup can induce hostility by creating a perception of intergroup threat. When outgroups are integrated, this hostility can be overcome by the opportunity for positive intergroup contact. On the other hand, if groups are segregated, this positive contact is unlikely to occur, and the threat created by size and proximity may go unchecked.

Integration is an essential first step in facilitating the positive effects of contact. Enos (2017), Kadt and Sands (2019), Kasara (2013), and Wilner, Walkley, and Cook (1952) find that intergroup prejudice is higher in areas with greater segregation and lower in areas with greater integration of different groups. However, integration only sometimes leads to contact. Weingrod (1965) gives the example of Israeli urban planning: even though housing projects, neighborhoods, and villages were built to integrate diverse immigrant groups, members of ethnic groups rarely interacted with their outgroup neighbors, preferring to travel to visit coethnics.

This literature establishes that demographic context can play a role in shaping group attitudes. However, outgroup context is associated with two opposing forces: the positive force of intergroup contact and the negative force of group threat. Predicting when intergroup contact will have a larger influence than group threat is key to understanding whether outgroup context will

result in more positive or more negative attitudes. While the existing literature identifies one definite impediment to contact – segregation – it is clear that integration is not sufficient to ensure positive contact. In the following sections, I examine the literatures on group threat and intergroup contact to understand what makes each more likely to occur and, when they occur, how they influence attitudes.

THREAT

Group threat is "the expectation that future intergroup relations will be harmful in some way to the ingroup" (Stephan, Renfro, and Davis 2008, 56). This harm can come in multiple forms. Realistic threats are the belief that an outgroup will harm the ingroup; this expected harm may be physical, but can often take the form of a loss in political or economic power (Stephan, Renfro, and Davis 2008). Symbolic threats are the concern that an outgroup will hold values or beliefs that contradict or erode those of the ingroup (Stephan, Renfro, and Davis 2008). Group threat may also cause psychological harm by triggering a sense of intergroup anxiety (Stephan, Renfro, and Davis 2008; Stephan and Stephan 1985). This perceived threat may operate at the individual level (Rosenstein 2008; Stephan, Renfro, and Davis 2008), but perceived threat to the ingroup is more relevant: the effects of group threat can operate even if one does not feel that they could personally be harmed (Blumer 1958; Bobo 1983; 1999; Quillian 1996).

Group threat leads to the adoption of negative group stereotypes (Dixon and Rosenbaum 2004). Ingroup members experiencing group threat stereotype outgroup members as behaving in harmful ways (Stephan, Renfro,

and Davis 2008). Group threat also leads to the adoption of negative outgroup attitudes (Blumer 1958; Coenders 2001; Esses et al. 2001; Riek, Mania, and Gaertner 2006; Scheepers, Gijsberts, and Coenders 2002; Semyonov et al. 2004; Stephan et al. 2005; Ullrich, Christ, and Schlüter 2006). Schlueter, Schmidt, and Wagner (2008) find that this relationship flows in a single causal direction: perceived group threat leads to more negative outgroup attitudes, while negative attitudes due not increase perceived group threat.

Group threat is theorized as stemming from the size of the outgroup (Blalock 1967; Blumer 1958). Contexts with larger outgroup populations create a greater sense of group threat (Coenders 2001; Fossett and Kiecolt 1989; Quillian 1995; 1996; Semyonov, Raijman, and Gorodzeisky 2006). In these context, this sense of group threat leads to the adoption of more negative group attitudes (Quillian 1995; 1996; Semyonov, Raijman, and Gorodzeisky 2006). However, Semyonov et al. (2004) raise the important caveat that perceived outgroup size may play a larger role in influencing group threat than actual outgroup size.

This literature establishes that proximity to larger outgroup populations can create anxiety that some form of harm will come to one's ingroup. This sense of threat leads to hostility and the adoption of more negative group attitudes. Aberson (2015) and Dixon and Rosenbaum (2004) show that group threat leads to the adoption of negative stereotypes, which may be one mechanism for its negative influence on attitudes. However, a contrasting literature on intergroup contact theory posits that the negative effects of threat can be overcome in contexts where members of different groups share positive interactions. In the following section, I examine this literature.

CONTACT

Allport (1954) argues that positive interactions between members of different groups has the potential to reduce intergroup prejudice. Without intergroup contact, group attitudes are primarily based on stereotypes, but positive interactions have the power to dispel negative stereotypes and lead individuals to adopt more positive outgroup attitudes (Allport 1954). Numerous studies have shown that outgroup contact can dispel negative stereotypes and improve intergroup attitudes (Aberson 2015; Allport 1954; Paluck, Green, and Green 2018; Stephan and Stephan 1984; Zingora, Vezzali, and Graf 2021).

Stephan and Stephan (1984) show that ignorance is one mechanism in creating prejudice. They argue that one of the paths through which contact can reduce prejudice is by increasing knowledge of other groups. Schild (1962) finds that students learn more about outgroup members through direct interactions with peers than through observation or lectures. This fits with Stephan and Stephan's (1985) conclusion that an educational program aimed at reducing ignorance and prejudice must "be a rather extensive program," while interpersonal contact can have many of the same effects.

Stephan and Stephan (1984) propose that ignorance causes prejudice toward outgroups by leading to anxiety about interacting with outgroups, heightening the perception of dissimilarities between ingroups and outgroups, and creating gaps in knowledge that can be filled with negative stereotypes. Contact has the potential to reduce all three of these effects. For example, Stephan and Stephan (1985) and Voci and Hewstone (2003) show that higher levels of contact are associated with lower levels of intergroup anxiety. Islam

and Hewstone (1993) and Paolini et al. (2004) argue that reducing intergroup anxiety is the primary mechanism for contact's positive effects.

Other mechanisms also play a role in the positive effects of contact. Islam and Hewstone (1993) additionally find that contact increased the perceived variability of outgroup members, combating stereotyping. Brambilla, Ravenna, and Hewstone (2012) even find that simply imagining interacting with an outgroup member can reduce negative outgroup stereotypes. Aron et al. (2004) and Page-Gould et al. (2010) find that intergroup friendships lead to more identification of the outgroup with the self, improving interactions with new outgroup members.

Increased identification of the outgroup with the self can reduce outgroup prejudice through multiple mechanisms. Cadinu and Rothbart (1996) argue that identification with the self is one of the primary mechanisms leading to ingroup favoritism. If intergroup friendship can expand this mechanism to outgroup members, it should therefore reduce ingroup bias. Galinsky and Moskowitz (2000) find that increased identification with the self can increase the propensity to take the perspective of outgroup members. Perspective-taking can increase empathy and reduce prejudice (Batson, Early, and Salvarani 1997), especially when taking the perspective of an outgroup that has experienced injustice (Dovidio et al. 2004).

But not all contact is successful. While integration is not enough to induce contact, contact is equally not enough, in and of itself, to produce positive effects. Instead, contact must have certain features to lead to positive attitude change. Allport argues that for contact to reduce prejudice, it must be "equal

status contact between majority and minority groups in the pursuit of common goals" (1954, 281).

Cook (1962) similarly classifies contact along several contextual dimensions, the most crucial being "relative status within the situation," "interdependence requirements," and acquaintance potential." These equate to measures of the equality or inequality of the parties in the interaction, the level of opportunity for cooperation or competition, and the depth or superficiality of interaction allowed. Cook provides contexts that exemplify these qualities: housing associations equalize relative status because they are predicated on similar housing situations, planning events and team contests require interdependence, and meeting at a USO club carries a more significant acquaintance potential than in a reading lounge.

Rather than reducing prejudice, Allport (1954) claims that "casual contact" can reinforce stereotypes (Kenworthy et al. 2005). This superficial level of contact offers numerous opportunities to confirm stereotypes but few opportunities to dispel them. While the idea of confirmation bias would not appear in the literature until Wason (1960), a similar mechanism is proposed. We are more likely to notice negative aspects of already disfavored groups in passing contact and unlikely to notice qualities that do not accord with our preexisting beliefs.

On the other hand, intergroup friendships, which provide ample opportunity for deep contact, may provide the greatest ability to reduce prejudice. Pettigrew's (1997) study of European adults finds that intergroup friendships are most associated with a reduction in group prejudice and that this effect is stronger than the alternative possibility that prejudice reduces intergroup

friendship. Wright et al. (1997) even find that the positive effects of intergroup friendships can propagate out through social networks even without direct contact, a phenomenon they refer to as "indirect friendship." Individuals whose friends have outgroup friends display lower levels of outgroup prejudice, controlling for their own friendships. Paolini et al. (2004) find that both direct and indirect friendships are associated with reduced prejudice. Even simply observing an ingroup-outgroup friendship can reduce measured prejudice (Wright et al. 1997).

However, even if contact creates positive impressions about individuals, it may not generalize to groups. Allport (1954) argues that attitudes toward individuals will not change attitudes toward their groups if the individuals are seen as exceptional members of the group. This phenomenon means that even those with close outgroup friends may nonetheless hold negative attitudes towards the group – their attitudes will not generalize if their friend's membership in the group is not viewed as salient or representative. Oudenhoven, Groennvoud, and Hewstone (1996) find in a study of Dutch secondary school students that while contact in a cooperative educational setting produces positive attitudes towards individual outgroup members, it only generalizes to the group as a whole if group identity is made salient. Voci and Hewstone (2003) and Ensari and Miller (2002) find similar results. Brown, Vivian, and Hewstone (1999) and Ensari and Miller (2002) find that positive effects of contact are better generalized to groups when individuals are seen as more typical of the group or the group is seen as more homogeneous.

Reducing the salience of groups may be tempting because it can have positive effects in specific settings. Gaertner et al. (1993) argue that intergroup

bias can be reduced when groups are recategorized from an "us" and "them" to a "we." In a study of undergraduates, Gaertner et al. (1989) find that in interactions between two small groups, bias is reduced when members are encouraged not to think of the participants as two groups but instead either as a single group or as individuals. However, these two recategorization strategies have different effects: framing all participants as a single group reduced negative attitudes towards outgroup members while focusing on individuals primarily decreased positive attitudes towards ingroup members. But recategorization reduces group salience, meaning these effects are unlikely to generalize to group attitudes. Indeed, Gaertner et al.'s (1989) observed attitude changes were not shown to generalize toward new ingroup or outgroup members.

Certain contexts are more likely to involve these positive characteristics than others. For example, Selltiz and Cook (1962) find that foreign college students visiting smaller American campuses and communities had more opportunities to interact with Americans and a greater depth of communication than those who visited larger settings. Kelman (1962) finds that contact is more successful in contexts where one-on-one interaction is encouraged rather than situations in which groups come into contact.

On the other hand, more recent studies have argued that the requirements for positive contact may be relaxed. Dixon and Rosenbaum (2004) and Pettigrew and Tropp (2006) find that even casual or superficial contact can be effective in improving outgroup attitudes. Zingora, Vezzali, and Graf (2021) argue that what may be more influential in determining whether contact has positive effects is whether interactions comport with or challenge pre-existing negative group stereotypes. While it is possible that Allport's (1954) assertion

that superficial contact is more likely to align with stereotypes than deep contact, it seems that superficial contact may be an effective avenue for attitude change in instances where it is clearly inconsistent with existing stereotypes.

This literature establishes that intergroup contact acts to improve evaluations of outgroups. A primary mechanism of this effect is dispelling negative stereotypes about outgroups. The literature also establishes that certain contexts are more conducive to meaningful contact while others are not. However, recent studies suggest that meaningful contact may be less of a concern than Allport (1954) originally theorized. Even superficial interactions with outgroup members who display counter-stereotypical attributes may improve attitudes. On the other hand, interactions with outgroup members who exhibit stereotypical characteristics may reinforce negative evaluations. This raises a question: are there demographic factors which may increase the probability that an individual will come into contact with group members that reinforce or challenge stereotypes? In the following section, I examine how language barriers can shape stereotypes and affect interactions, in order to propose that language may be one such factor.

LANGUAGE

Language is one factor that can prevent contact between groups. Regardless of other factors, individuals who do not speak a common language are exceedingly unlikely to engage in meaningful interactions. Because languages are often deeply tied to other social identities, the inability to engage in positive contact with members of a language community may generalize into negative attitudes towards an associated ethnic group.

Rosa and Flores (2017) present the theory of raciolinguistic ideologies. They argue that racial ideologies and linguistic ideologies cannot be understood separately. Instead, our attitudes towards race and language are coproduced. As a result, language-related experiences may change our racial or ethnic attitudes, and experiences related to race and ethnicity may change our attitudes toward languages. Rosa and Flores (2017) note that while raciolinguistic ideologies are constructed by dominant groups, they may be practiced by members of dominant groups and marginalized groups alike.

Some identity categories are deeply tied to language. Mora (2014) shows that the classification of Americans as "Hispanic" or "Latino" has its roots in government programs addressing the needs of the "Spanish-speaking" population. Rocha and Espino (2009) find that white attitudes toward Latino Americans are shaped by language. They find that proximity to larger Spanish-speaking populations predicts white support for English-only legislation and restrictive immigration policies.

Other identity categories are stereotyped as foreign even if they are not tied to a single language. Asian Americans and Latinos are both positioned as "foreign" in American racial attitudes (C. J. Kim 1999; Zou and Cheryan 2017). Kim (1999) argues that Asian Americans in particularly face prejudice because of the perception that they are "permanently foreign" (109).

Raciolinguistic stereotypes play a role in positioning these groups as foreign. A majority of Americans believe that "speaking English should be important in making someone a true American" (Schildkraut 2001, 603). This belief negatively impacts Latino and Asian Americans, because both groups are stereotyped as "not speaking English very well" (Zou and Cheryan 2017) and

even native English-speaking group members are often seen as non-native speakers (Huynh, Devos, and Smalarz 2011).

Given this literature, I propose that the linguistic characteristics of outgroup members may be one factor that determines whether the positive effects of intergroup contact will outweigh the negative effects of group threat. In contexts where an individual is faced with many outgroup members with whom they do not share a language in common, it may be very difficult to engage in meaningful interactions that display the faults in dominant stereotypes. Further, because raciolinguistic ideologies are a source of stereotypes, experiencing language barriers with outgroup members may serve to reinforce negative preconceptions about the group. In contrast, when an individual is in a context where they share a language in common with many outgroup members, this is likely to challenge their raciolinguistic stereotypes and provide them with more opportunities to engage in contact that may dispel other stereotypes as well.

CONCLUSION

This exploration of the literature leads me to conclude that in order to understand the effects of outgroup context, group threat and intergroup contact must be considered together. Outgroup context is associated with increases in both group threat and intergroup contact, but these shape group attitudes in opposite ways. Group threat reinforces negative stereotypes, resulting in worsened attitudes. In contrast, intergroup contact has the capacity to challenge negative stereotypes, improving attitudes. Because of these contrary associations, we cannot draw conclusions about outgroup context by

analyzing its relationship with threat or contact alone. Instead, we must analyze how it impacts both phenomena, and determine which effect dominates.

In order to predict whether threat or contact will have a larger effect on attitudes, we must identify features of an outgroup context that alter the balance between them. One feature that is already well studied in the literature is segregation, which impedes positive intergroup contact and leaves group threat unchecks. I propose that language barriers are another factor that can alter this balance. Language barriers impede positive intergroup contact through two mechanisms: first by making meaningful interactions more difficult and second by making it more likely that interactions will support rather than refute raciolinguistic stereotypes. Given this, I argue that the linguistic characteristics of an outgroup population may serve as an important differentiator between contexts that foster tolerance and those that result in hostility.

In the following chapter, I analyze survey results and census data to validate the hypothesis that outgroup context operates through two separate pathways, each of which shape stereotypes and outgroup attitudes. In subsequent chapters, I test language's role in differentiating these two pathways.

Chapter 3

CONTEXT SHAPES ATTITUDES

Outgroup context, the geographic and demographic features of the outgroup populations around an individual, presents a puzzle for our understanding of intergroup attitudes. On one hand, outgroup context offers individuals more opportunities to interact with, learn about, and come to value members of other groups. At the same time, outgroup context carries a risk of conflict, resentment, or threat between groups. Given these countervailing aspects of outgroup context, it is difficult to predict whether outgroup context is likely to lead to more intergroup tolerance or prejudice. In this chapter, I seek to establish the mechanisms through which outgroup context shapes group attitudes.

The presence of an outgroup population in a respondent's geographic environment provides the opportunity for intergroup contact. Living near members of another group does not guarantee that individuals will interact with outgroup members. Individuals may choose not to interact with members of other groups for various reasons. Some may avoid outgroup contact due to prejudice, but others fail to interact with members of other groups for more benign reasons, such as introversion or a lack of free time. In other cases, external factors may prevent outgroup contact, such as geographic segregation or language barriers. However, while demographic context is not sufficient to ensure contact, it generally serves as a necessary precondition for intergroup contact. At the same time, living near members of other groups can heighten the salience of threat that individuals may feel about outgroups.

In this chapter, I use survey responses and census data to perform regression analyses demonstrating that there is an association between demographic context and intergroup contact, between intergroup contact and group stereotypes, and between group stereotypes and outgroup attitudes. I use moderation analysis to demonstrate that the association between outgroup context and group stereotypes is different between those that do and do not engage in intergroup contact. Finally, I use mediation analysis to show that the relationship between intergroup contact and outgroup attitudes operates in part through contact's effect on group stereotypes.

LITERATURE REVIEW

Living near members of other social groups is associated with two divergent outcomes. On one hand, outgroup context provides increased opportunities for intergroup contact. Research on contact suggests that when members of different groups have positive interactions, hostilities between the groups tend to decrease (Allport 1954; Paluck, Green, and Green 2018). On the other hand, outgroup context is associated with an increased sense of group threat, which leads to more hostile outgroup attitudes (Blalock 1967; Blumer 1958; Bobo and Hutchings 1996; Enos 2017).

Both intergroup contact and group threat shape outgroup stereotypes. Intergroup contact allows individuals to learn about members of other groups, replacing stereotypes with more nuanced opinions (Stephan and Stephan 1984). When interactions with outgroup members are positive, this has the potential to dispel negative stereotypes (Allport 1954; Dixon and Rosenbaum 2004; Islam and Hewstone 1993). On the other hand, group threat is associated

with increased outgroup stereotyping (Aberson 2015; Dixon and Rosenbaum 2004). Because group stereotypes play a role in shaping group attitudes, particularly negative attitudes (Aberson 2015; Allport 1954), intergroup contact and group threat's effects on stereotyping can also affect overall attitudes.

THEORY

I theorize that outgroup context can affect outgroup attitudes through the following causal pathway. First, outgroup context provides the opportunity for individuals to interact with members of an outgroup. Second, intergroup contact provides opportunities for individuals to understand outgroup members as individual people rather than an undifferentiated group and to dispel negative stereotypes about the outgroup. Third, viewing outgroup members as individuals and unlearning outgroup stereotypes leads individuals to adopt more positive attitudes towards the outgroup. This causal pathway is illustrated in Figure 1.

Crucially, two of the causal links in this theory only provide opportunities for a process to occur: they are necessary, but not sufficient. Outgroup context provides individuals with an opportunity for outgroup contact and outgroup contact provides individuals with an opportunity to reconceptualize outgroup members. Context increases the likelihood of contact and contact increases the likelihood of stereotype reduction, but neither factor ensures that the casual pathway is followed from start to finish. In this chapter, I run analyses to test the predicted associations of this causal pathway. I also test

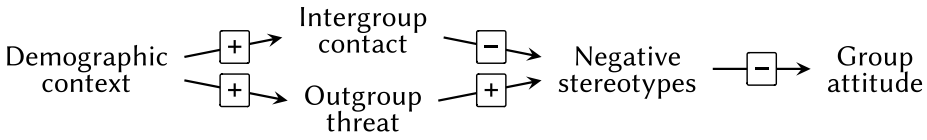

Figure 1: Causal pathway between demographic context and outgroup attitudes.

multiple operationalizations of demographic context and intergroup contact to see what operationalization of context best predict contact and which types of contact are associated with negative stereotype reduction.

METHOD

To empirically assess the relationship between demographic context, intergroup contact, group stereotypes, and group attitudes, I administered a set of survey questions to 3,018 YouGov panelists to measure their attitudes towards and experiences with members of different racial groups. These questions were spread across three surveys. Questions regarding Asian and Latino Americans were asked of the 2,078 respondents who answered the first two surveys, questions regarding Black and white Americans were asked of the 1,066 respondents who answered the first survey, and questions regarding immigrants were asked of the 1,000 respondents who answered the third survey (see Appendix 1 for more information about this dataset).

My analyses include respondents who identify as Asian American, Black, Latino, or white. Because this analysis focuses on outgroup attitudes, I limit the sample for each model to exclude members of the group in question. For analyses of outgroup attitudes towards Latinos, I exclude respondents who indicated that they are of Spanish, Latino, or Hispanic descent regardless of their primary racial identification. For analyses of attitudes

towards immigrants, I exclude respondents who indicate they were born outside the United States.

To quantify each respondent's outgroup context, I join each respondent's answers with census data about their zip code of residence. This data is derived from the American Community Survey five-year aggregation from 2017–2021, retrieved from IPUMS NHGIS (Manson et al. 2023). I operationalize racial outgroup context using the Asian, Black, Latino, and white share of the zip code's total population. The Asian, Black, and white populations include only the monoracial, non-Hispanic populations of the respective race. The Latino population includes Hispanic populations of any race. I similarly operationalize immigrant outgroup context using the foreign-born share of the total population in each non-immigrant respondent's zip code.

I conduct this analysis at the zip code level because, of the geographic levels at which the Census Bureau releases demographic data, zip codes are the level at which demographic context is most significantly associated with levels of intergroup contact. See Appendix 2 for analysis of demographic context at various geographic levels and for more information about zip code tabulation areas.

Each model in this chapter includes controls for the respondent's age, educational attainment, gender, and race, and the logged zip code population density of the respondent's zip code. Controlling for population density accounts for the possibility that respondents in more urban areas may systematically differ from those in more rural areas in terms of both exposure to outgroup members and group attitudes.

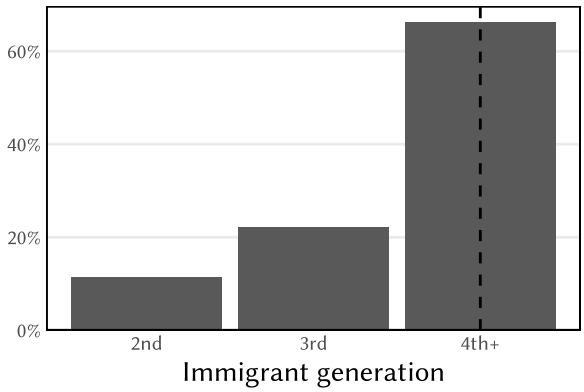

Figure 2: Distribution of immigrant generation status among non-immigrant survey respondents. Dashed line indicates median response.

Analyses of attitudes towards immigrants include an additional control for immigrant generation. This variable accounts for the possibility that direct descendants of immigrants may be both more likely to interact with immigrants and to have opinions about immigrants and immigration shaped by family experience. This variable is measured with a question that asks "Which of these statements best describes you?" with response options "I am an immigrant to the USA and a naturalized citizen", "I am an immigrant to the USA but not a citizen", "I was born in the USA but at least one of my parents is an immigrant" (coded as second generation), "My parents and I were born in the USA but at least one of my grandparents was an immigrant" (third generation), and "My parents, grandparents and I were all born in the USA" (fourth generation or higher). Respondents who indicate that they are immigrants are excluded from this analysis, while fixed effects are applied for each generational group of non-immigrants. Figure 2 plots the distribution of immigrant generation across non-immigrant respondents.

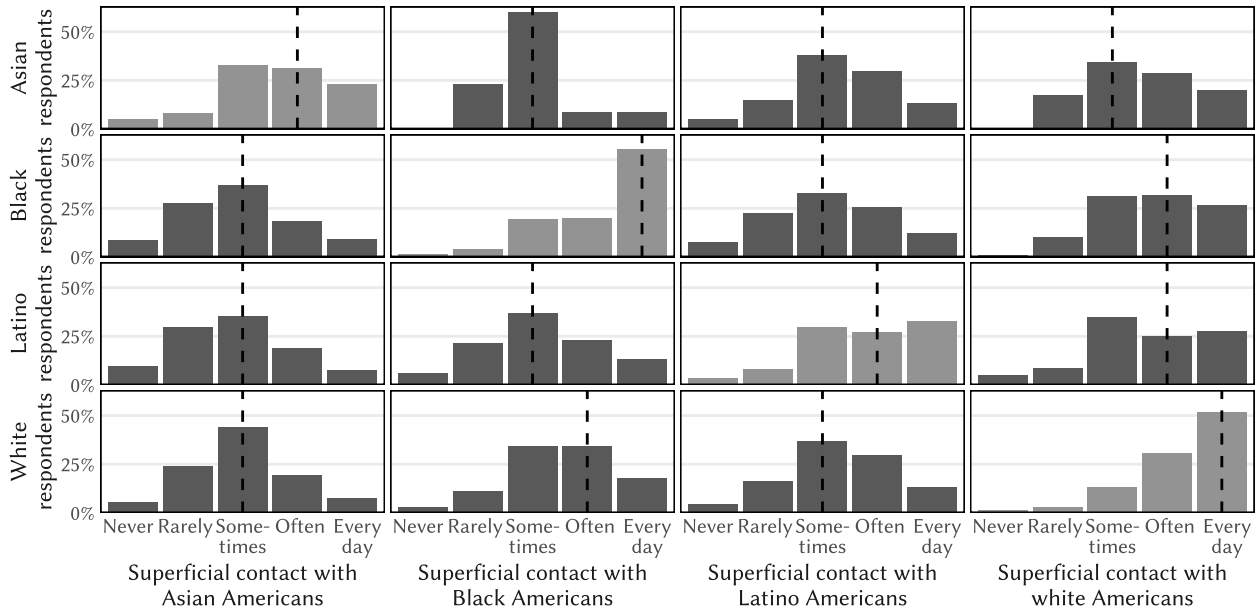

Figure 3: Distribution of superficial contact with Asian, Black, Latino, and white Americans among Asian, Black, Latino, and white American survey respondents. Ingroup contact is shaded in a lighter color. Dashed lines indicate the median response in each facet.

ANALYSIS

Contact based on racial outgroup context

To assess levels of contact with racial outgroups, I used two questions, one assessing levels of superficial contact and the other deep contact. To measure superficial contact, each respondent was asked a series of questions that started with the tag phrase "How often, if at all, do you have everyday relationships (such as exchanging a few words, buying something at a store, and so on) with...?" and then presented with a group, including "Asian Americans," "Black or African Americans," "Hispanic or Latino Americans," and "White Americans." Response options were "every day" (coded as 1), "often" (0.75), "sometimes" (0.5), "rarely" (0.25), and "never" (0). Figure 3 plots the distribution of superficial contact frequency among respondents. Distributions of

outgroup superficial contact generally approximate normal distributions. Across groups, the median respondent engages in superficial contact with members of each racial outgroup "sometimes", except for white respondents' superficial contact with Black Americans and Black and Latino respondents' superficial contact with white Americans, where the median response is "often". Across all groups, respondents are more likely to interact with white Americans than with members of other racial outgroups.

To measure deep contact, each respondent was asked question starting with "In the last six months, have you shared a meal in your home with...?" and presented with a member of a group, including "an Asian American," "a Black or African American," "a Hispanic or Latino American" and "a White American." Response options were "yes" (coded as 1) and "no" (0). These questions are adapted from questions used in Reny and Barreto (2022). Figure 4 plots the distribution of deep outgroup contact. Across all groups, a majority of respondents have shared a meal with a member of their racial ingroup, while a minority have shared a meal with a member of a racial outgroup. Notable outliers are Asian Americans, where a sizeable minority of respondents have not shared a meal with another Asian American, and Latino Americans, where almost equal shares have and have not shared a meal with a white American. The latter phenomenon may be explained by the large number of Americans who identify as both white and Latino, meaning some of the Latinos who indicated that they shared a meal with a white American may have been thinking about a white Latino who they may not consider to be a racial outgroup member. Respondents of all racial groups were more likely to engage in deep contact with white Americans than with members of other racial outgroups,

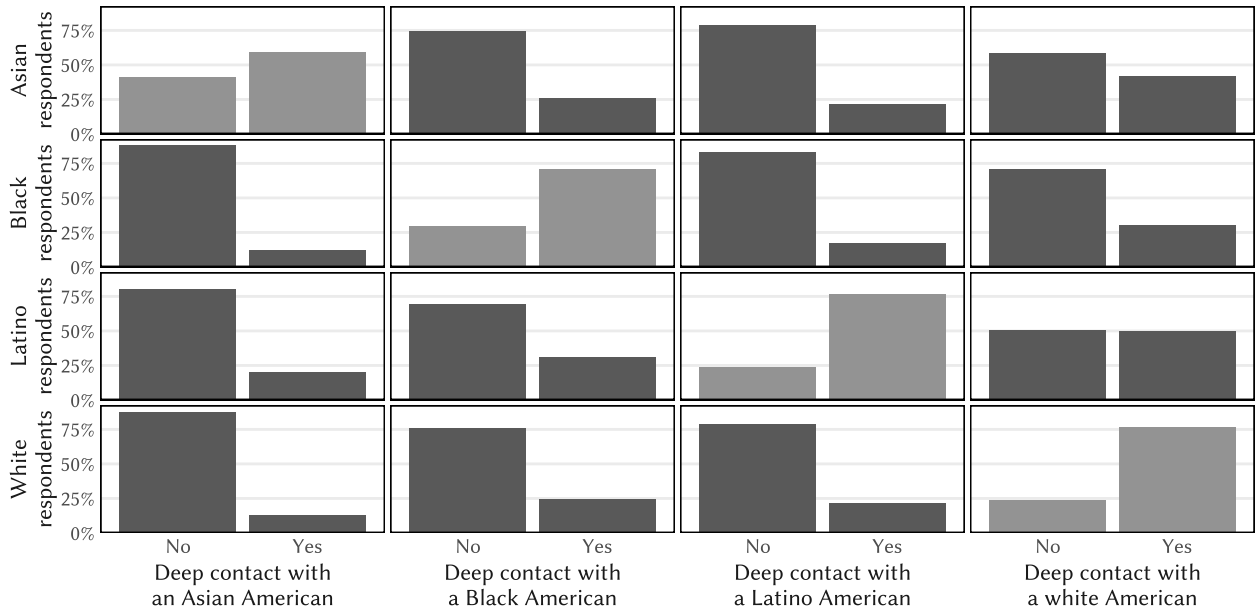

Figure 4: Distribution of deep contact with Asian, Black, Latino, and white Americans among Asian, Black, Latino, and white American survey respondents. Ingroup contact is shaded in a lighter color. Dashed lines indicate the median response in each facet.

which likely reflects the fact that the median respondent across all groups lives in an area white a white plurality, providing more opportunities to interact with white Americans than with members of other racial outgroups.

To assess the relationship between demographic context and intergroup contact, I conducted a linear regression analysis predicting superficial and deep contact with Asian, Black, Latino, and white Americans based on each group's population share in the respondent's zip code. For each outcome, I analyzed only responses from outgroup members; for example, when predicting attitudes towards Latinos, I analyzed the responses of Asian, Black, and white respondents who indicated that they were not Hispanic or Latino. I limited my sample to respondents who indicated that their race was Asian, Black, Latino, or white and that they were not multiracial.

Results of this analysis are summarized in Table 1. Results suggest that larger outgroup Asian and Latino populations in a respondent's zip code are associated with increased chances of the respondent engaging in both superficial contact (exchanging a few words) and deep contact (sharing a meal) with Asian and Latino Americans, respectively. Larger white populations are not significantly associated with increased superficial or deep contact with white outgroup members. This may be an artifact of the small sample of non-white respondents. The marginal effect of white outgroup population size on superficial contact may also be subject to a ceiling effect, given that white outgroup contact is generally high across the board. The intercept coefficient of 0.640 for superficial white outgroup contact means that even a respondent who lives in a zip code with no white residents would still be expected to say they interact with white people between "sometimes" (coded as 0.5) and "often" (0.75). Finally, larger outgroup Black populations are associated with increased superficial contact, but not are not significantly associated with increased deep intergroup contact. This may also be attributed to this question's smaller sample size, but even the point estimate of the association between population share and deep contact is smaller than that for superficial contact, unlike all other groups which have a stronger association between population size and deep contact than between population size and superficial contact. This suggests there is a unique disconnect between outgroup context and deep outgroup contact when the outgroup population in question is Black.

	Dependent variable:							
	Asian contact		Black contact		Latino contact		White contact	
	Superficial	Deep	Superficial	Deep	Superficial	Deep	Superficial	Deep
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Population share in zip code	0.295*	0.621*	0.312***	0.108	0.189**	0.422***	0.088	0.183
	(0.102)	(0.253)	(0.068)	(0.136)	(0.058)	(0.091)	(0.082)	(0.171)
Age	0.000	−0.002***	0.000	−0.004***	0.000	−0.001*	0.001	−0.002
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)	(0.002)
Bachelor's degree	0.079***	0.045	0.049*	−0.011	0.058**	0.039	0.072	0.186*
	(0.015)	(0.023)	(0.023)	(0.041)	(0.018)	(0.026)	(0.047)	(0.088)
Male	0.005	0.025	0.004	0.018	0.001	−0.010	−0.011	0.015
	(0.014)	(0.020)	(0.021)	(0.039)	(0.016)	(0.023)	(0.043)	(0.080)
Log zip code population density	0.016***	0.007	0.004	0.020*	0.013**	0.004	−0.013	0.034
	(0.004)	(0.006)	(0.005)	(0.009)	(0.004)	(0.006)	(0.012)	(0.020)
Intercept	0.342***	0.167**	0.472***	0.322**	0.392***	0.171*	0.640***	0.031
	(0.040)	(0.051)	(0.058)	(0.098)	(0.045)	(0.071)	(0.131)	(0.238)
Race fixed effects	✓	✓	✓	✓	✓	✓	✓	✓
Observations	1,684	1,684	778	778	1,506	1,506	210	210
R^2	0.061	0.059	0.043	0.056	0.044	0.050	0.055	0.062
Adjusted R^2	0.058	0.056	0.037	0.050	0.041	0.047	0.032	0.039
								Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 1: Results of regression models predicting outgroup contact based on the outgroup's share of the population in an individual's zip code of residence. Standard errors are cluster robust at the zip code level.

Given that the size of a zip code's Black population is associated with its non-Black residents' superficial contact with Black Americans but not deep contact, one might suspect that there is a weaker association between respondents' superficial and deep contact with Black Americans than there is with other racial groups. To test this possibility, I conducted a linear regression analysis predicting a respondent's deep contact with members of an outgroup based on their level of superficial contact with that group. The model uses the same samples as the model in Table 1.

	Dependent variable:			
	Deep Asian contact	Deep Black contact	Deep Latino contact	Deep white contact
	(1)	(2)	(3)	(4)
Superficial contact	0.323***	0.453***	0.423***	0.468**
	(0.045)	(0.077)	(0.044)	(0.164)
Population share in zip code	0.525	−0.033	0.342***	0.142
	(0.265)	(0.127)	(0.087)	(0.168)
Age	−0.002***	−0.005***	−0.001*	−0.002
	(0.000)	(0.001)	(0.000)	(0.002)
Bachelor's degree	0.019	−0.034	0.014	0.152
	(0.022)	(0.041)	(0.024)	(0.087)
Male	0.024	0.016	−0.011	0.020
	(0.020)	(0.038)	(0.022)	(0.079)
Log zip code population density	0.001	0.019	−0.001	0.041
	(0.006)	(0.009)	(0.006)	(0.022)
Intercept	0.056	0.108	0.005	−0.267
	(0.050)	(0.098)	(0.069)	(0.277)
Race fixed effects	✓	✓	✓	✓
Observations	1,684	778	1,506	210
R^2	0.111	0.123	0.127	0.124
Adjusted R^2	0.108	0.116	0.124	0.098
				Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 2: Results of regression models predicting deep outgroup contact based on superficial outgroup contact. Standard errors are cluster robust at the zip code level.

Regression results in Table 2 show that superficial and deep contact are significantly correlated for all four outgroups. The association for contact with Black Americans is not significantly different from that for any other outgroup, showing that there is no special disconnect between respondents' superficial and deep contact with Black Americans.

Stereotypes based on racial context and contact

To assess stereotyping towards Asian, Black, and Latino Americans, respondents were presented with a battery of statements measuring racial resentment towards Asian (D. G. Kim 2022), Black (Kinder and Sanders 1996), and Latino Americans (Ocampo and Garcia-Rios 2020). Statement text is included in Appendix 3. Response options were "strongly disagree" (coded as 0), "somewhat disagree" (0.25), "not sure" (0.5), "somewhat agree" (0.75), and "strongly agree" (1). Reverse coded options were mapped with signs flipped, so "strongly disagree" was coded as 1 and "strongly agree" coded as 0. An overall resentment score was calculated for each respondent towards each group by taking the mean of their coded responses to each individual question, yielding an Asian, Black, and Latino resentment score that ranges from 0, indicating strong disagreement with all negative statements and strong agreement with all reverse-coded statements, to 1, indicating strong agreement with all negative statements and strong disagreement with all reverse coded statements.

Figure 5 plots the distribution of scores among respondents. Across groups, racial resentment scores towards each outgroup approximate a roughly normal distribution. Median attitudes towards each outgroup are close to 0.5, with outgroup respondents attaining slightly higher average scores on

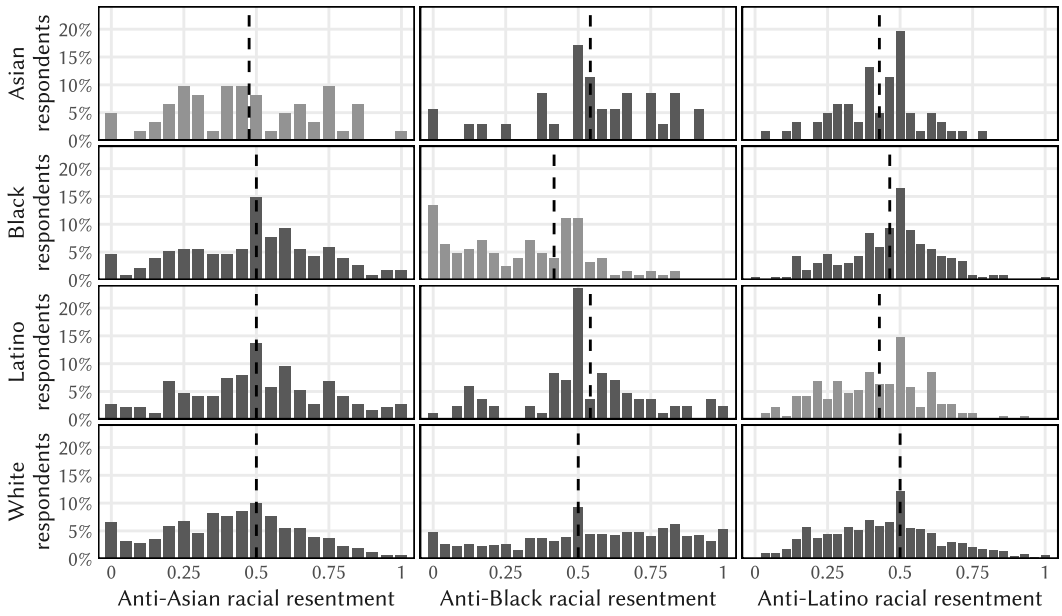

Figure 5: Distribution of anti-Asian, Black, and Latino racial resentment scores among Asian, Black, Latino, and white American survey respondents. Ingroup racial resentment is shaded in a lighter color. Dashed lines indicate the median score in each facet.

the anti-Black resentment scale and slightly lower average scores on the anti-Latino resentment scale.

To assess the relationship between demographic context and group stereotypes, I conducted a linear regression analysis predicting respondents' racial resentment scores towards Asian, Black, and Latino Americans based on the Asian, Black, and Latino population shares of their zip codes of residence. I did not consider stereotypes about white outgroups for this analysis. This model uses the same samples and controls as those in Table 1.

Results of this analysis are summarized in Table 3. These results do not show a significant association between the population share of an outgroup in a respondent's zip code and responses on a racial resentment battery about that outgroup. This seems to suggest that there is no relationship between

	Dependent variable:		
	Asian resentment	Black resentment	Latino resentment
	(1)	(2)	(3)
Population share in zip code	0.303 (0.263)	0.098 (0.173)	0.105 (0.068)
Age	−0.002* (0.000)	0.007*** (0.001)	−0.001* (0.000)
Bachelor's degree	−0.137*** (0.033)	−0.167*** (0.048)	−0.147*** (0.025)
Male	0.009 (0.028)	0.066 (0.042)	0.007 (0.023)
Log zip code population density	−0.001 (0.008)	−0.027** (0.010)	−0.014* (0.005)
Intercept	0.087 (0.095)	−0.008 (0.156)	−0.017 (0.077)
Race fixed effects	✓	✓	✓
Observations	1,667	774	1,494
R^2	0.036	0.109	0.046
Adjusted R^2	0.032	0.101	0.041
			Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 3: Results of regression models predicting racial resentment towards Asian, Black, and Latino Americans based on each group's share of the population in a respondent's zip code. Standard errors are cluster robust at the zip code level.

demographic context and stereotypes about outgroups. I argue that this apparent null association is the result of two countervailing effects of demographic context on group stereotypes. Enos (2017) establishes that increased size of and proximity to members of an outgroup can trigger a threat response, making negative group stereotypes more salient. However, outgroup proximity also offers opportunities for positive contact with group members, dispelling negative stereotypes about the group.

To provide evidence for the latter point, I conduct a linear regression analysis predicting racial resentment scores towards Asian, Black, and Latino Americans based on the respondents' levels of superficial contact

	Dependent variable:					
	Asian resentment		Black resentment		Latino resentment	
	(1)	(2)	(3)	(4)	(5)	(6)
Superficial contact	−0.115***		−0.130***		−0.150***	
	(0.024)		(0.037)		(0.019)	
Deep contact		0.013		−0.024		−0.048***
		(0.019)		(0.023)		(0.012)
Age	−0.000	−0.000	0.004***	0.003***	−0.000	−0.000*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Bachelor's degree	−0.069***	−0.078***	−0.095***	−0.099***	−0.065***	−0.072***
	(0.013)	(0.013)	(0.022)	(0.022)	(0.010)	(0.011)
Male	0.012	0.010	0.045*	0.046*	0.011	0.010
	(0.011)	(0.011)	(0.019)	(0.019)	(0.010)	(0.010)
Log zip code population density	0.006	0.003	−0.011*	−0.012**	−0.001	−0.003
	(0.003)	(0.003)	(0.004)	(0.004)	(0.002)	(0.002)
Intercept	0.520***	0.484***	0.565***	0.518***	0.565***	0.511***
	(0.036)	(0.036)	(0.064)	(0.063)	(0.035)	(0.035)
Race fixed effects	✓	✓	✓	✓	✓	✓
Observations	1,667	1,667	774	774	1,494	1,494
R^2	0.053	0.039	0.122	0.110	0.076	0.047
Adjusted R^2	0.049	0.035	0.114	0.102	0.071	0.042
					Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$	

Table 4: Results of regression models predicting racial resentment towards Asian, Black, and Latino Americans based on levels of superficial and deep contact with members of that group. Standard errors are cluster robust at the zip code level.

(operationalized as frequency of sharing a few words) and deep contact (operationalized as sharing a meal) with members of that outgroup. Regression results in Table 4 show that across all three outgroups, higher levels of superficial contact (operationalized as frequency of sharing a few words) with members of that group are associated with lower racial resentment scores towards that group. This provides evidence for the theory that contact is associated with decreased negative stereotyping of outgroups. On the other hand, deep contact (operationalized as sharing a meal) is not significantly associated with reduced negative outgroup stereotyping. Coefficients for the

association between deep contact with Asian and Black Americans and racial resentment directed at that group are insignificant. There is a significant relationship between deep contact with Latinos and reduced racial resentment towards Latinos, but this coefficient is still smaller than that associated with superifical contact. This runs counter to my theory, which suggests that deep contact should be more effective at dispelling negative stereotypes than deep contact. However, this may reveal a deficiency in my operationalization of deep contact. Because sharing a meal is only one of many ways to engage in deep contact, this operationalization may exclude a large number of respondents who engage in deep contact in other settings, meaning the variable does not truly separate respondents who do and do not engage in deep contact. On the other hand, the superficial contact variable does not preclude deep contact. Respondents who share a few words with members of an outgroup every day are probably also more likely to engage in deeper conversation with outgroup members. Given the null effects and possible deficiencies of this measure of deep contact, later analyses conducted with this dataset examine only superifical contact with racial outgroups.

The preceding analyses also present a second puzzle. Table 1 shows that living near larger Asian, Black, and Latino populations is associated with increased likelihoods of engaging in superficial contact with members of each of these racial outgroups. Table 4 shows that engaging in superficial contact with members of each of these outgroups is associated with reduced racial resentment towards the group. This makes it surprising that the associations between racial outgroup context and racial resentment presented in Table 3 are positive, albeit insignificant.

Figure 6: Relationship between demographic context and negative stereotypes, with and without intergroup contact and outgroup threat acting as intervening variables. When demographic context and negative stereotypes are compared directly (left), there is an apparent null relationship. However, this is because demographic context shapes negative stereotypes through two contradictory pathways: intergroup contact, which reduces negative stereotyping, and outgroup threat, which increases negative stereotyping (right).

One potential explanation for this unexpected result is that outgroup context affects stereotyping through two separate pathways. First, outgroup context increases opportunities for intergroup contact, which is associated with reduced stereotyping (Allport 1954). But second, outgroup context increases perceptions of group threat (Blalock 1967; Blumer 1958; Enos 2017), which is associated with increased stereotyping (Dixon and Rosenbaum 2004). If this is the case, the insignificant associations between outgroup context and stereotypes found in Table 3 may be the result of the positive effects of intergroup contact and negative effects of group threat cancelling out. Figure 6 illustrates this hypothesized relationship.

To assess these separate pathways of influence, I conduct a regression analysis predicting outgroup racial resentment based on outgroup context, superficial contact, and an interaction term between context and contact. Regression results in Table 5 show that, when controlling for the impact of contact, living near larger outgroup populations is associated with an increased likelihood of agreeing with negative stereotypes of Asian and Latino Americans.

	Dependent variable:		
	Asian resentment	Black resentment	Latino resentment
	(1)	(2)	(3)
Population share in zip code	0.296*	0.103	0.106**
	(0.113)	(0.076)	(0.035)
Frequent superficial contact	−0.033*	−0.061*	−0.042**
	(0.016)	(0.024)	(0.014)
Population share × frequent contact	−0.372*	0.011	−0.141*
	(0.157)	(0.123)	(0.058)
Age	−0.000	0.004***	−0.000
	(0.000)	(0.000)	(0.000)
Bachelor's degree	−0.074***	−0.091***	−0.068***
	(0.013)	(0.022)	(0.010)
Male	0.010	0.046*	0.007
	(0.011)	(0.019)	(0.010)
Log zip code population density	0.002	−0.013**	−0.004
	(0.003)	(0.004)	(0.002)
Intercept	0.493***	0.517***	0.507***
	(0.037)	(0.063)	(0.035)
Race fixed effects	✓	✓	✓
Observations	1,667	774	1,494
R^2	0.052	0.121	0.066
Adjusted R^2	0.047	0.110	0.060
			Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 5: Results of regression models predicting racial resentment towards Asian, Black, and Latino Americans based on each group's share of the population in a respondent's zip code interacted with whether the respondent interacts with members of that group "often" or "every day". Standard errors are cluster robust at the zip code level.

On the other hand, the interaction term indicates that, among respondents who engage in frequent contact with members of the outgroup – which I operationalize as sharing a few words with an outgroup member "often" or "every day" – the negative effect of outgroup size is neutralized, because the interaction term between population share and frequent contact is negative with a larger absolute value. This provides evidence for the theory that outgroup stereotypes of Asian and Latino Americans are driven by two

countervailing effects of demographic context – the positive effect of intergroup contact and the negative effect of perceived outgroup threat. While results from this model are confirmatory for stereotypes about Asian and Latino Americans, this model produces largely null results for the association between the Black population share and anti-Black racial resentment. This could be due to the smaller sample of respondents who were asked the items on the anti-Black racial resentment scale. It may also reflect the fact that the anti-Black stereotypes captured in the racial resentment scale are pervasive talking points in American culture and political discourse – in other words, anti-Black stereotypes may be less affected by local context because they are salient nationwide.

Outgroup context and contact with immigrants

Motivated by the weak associations between deep contact and stereotypes toward racial outgroups, I presented respondents to the third YouGov Daily Survey with three alternative operationalizations of deep contact with immigrants. This allows me to test whether deep contact is truly unrelated to outgroup stereotyping, as suggested by Table 4, or whether the apparently insignificant relationship is an artifact of a poor measurement of deep contact. In this analysis, I test whether demographic context is associated with superficial and deep contact with immigrants. Then, in the following analysis, I test whether superficial and deep contact with immigrants are associated with immigrant stereotyping.

To measure deep contact, respondents were asked "In the last year, have you...? Visited an immigrant's home or invited an immigrant to visit your

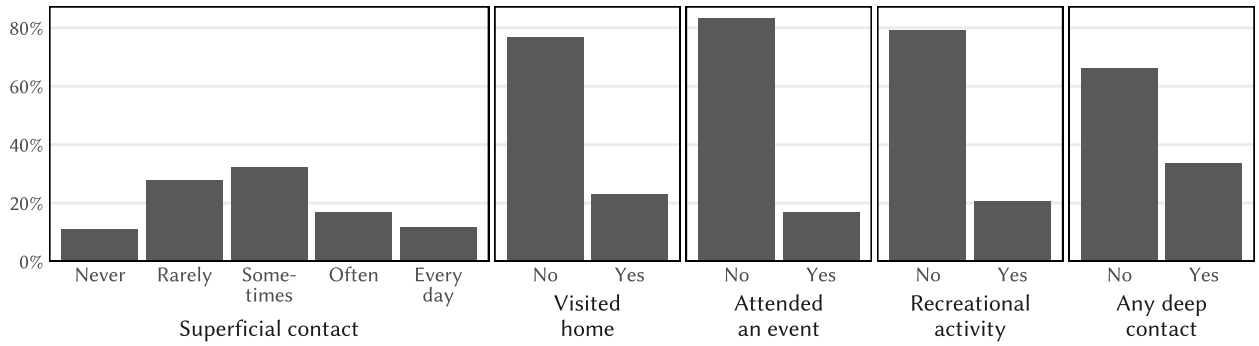

Figure 7: Distribution of contact with immigrants among non-immigrant survey respondents.

home", "Participated in a recreational activity with an immigrant, such as playing a game or sport", and "Attended a festival or a ceremony, such as a wedding or funeral, organized by an immigrant" (these questions are derived from Grootaert et al. 2004; similar questions were also used to assess the effects of deep contact in Tobias and Boudreaux 2011). Each deep contact question offered the response options "Yes" (coded as 1) and "No" (0). An indicator variable for engaging in any deep contact was constructed based on whether the respondent answered "yes" to any of the three deep contact questions. Respondents were also asked a similar question to that used in the previous analysis to measure superficial contact: "How often, if at all, do you have everyday relationships (such as exchanging a few words, buying something at a store, and so on) with...? Immigrants".

Figure 7 displays the distribution of superficial and deep contact with immigrants across respondents. Superficial contact follows an approximately normal distribution, with the median respondent engaging in superficial contact "sometimes", and slightly more respondents interacting "rarely" or "never" than "often" or "every day". A minority of respondents engaged in each form of deep contact with immigrants: 23.1% visited an immigrant's home or invited

an immigrant to visit their home, 16.8% attended an event organized by an immigrant, and 20.6% engaged in recreational activities with an immigrant. Overall, 33.6% of respondents engaged in any form of deep contact with immigrants, while 89.0% engage in superficial contact at least rarely.

To assess the relationship between demographic context and intergroup contact between immigrants and non-immigrants, I conducted a linear regression analysis predicting non-immigrant respondents' levels of superficial contact and each operationalization of deep contact with immigrants based on the foreign-born population share of the respondent's zip code.

Results of this analysis are summarized in Table 6. Results suggest that larger foreign-born populations in a respondent's zip code are associated with increased chances of the respondent engaging in superficial contact (exchanging a few words) and one measure of deep contact (participating in recreational activities) with immigrants. There is also a positive relationship between the foreign-born population share in a respondent's zip code and the respondent's likelihood of engaging in any form of deep contact. On the other hand, these models do not show find a significant relationship between the foreign-born population in a respondent's zip code and their likelihood of having a home visit with an immigrant or attending an event hosted by an immigrant, although both relationships are in the expected positive direction.

	Dependent variable:				
	Immigrant contact				
		Deep			
	Superficial	Visit	Event	Play	Any
	(1)	(2)	(3)	(4)	(5)
Population share in zip code	0.451**	0.291	0.301	0.435*	0.447*
	(0.152)	(0.193)	(0.187)	(0.203)	(0.210)
Age	−0.000	−0.004***	−0.004***	−0.005***	−0.007***
	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)
Bachelor's degree	0.069**	0.088*	0.101**	0.097**	0.103**
	(0.022)	(0.036)	(0.033)	(0.034)	(0.038)
Male	−0.014	−0.025	0.001	−0.003	0.002
	(0.021)	(0.030)	(0.027)	(0.029)	(0.034)
Log zip code population density	0.006	0.010	−0.006	0.007	0.010
	(0.007)	(0.010)	(0.009)	(0.010)	(0.011)
Intercept	0.449***	0.600**	0.274	0.312	0.806***
	(0.094)	(0.179)	(0.148)	(0.161)	(0.157)
Immigrant generation fixed effects	✓	✓	✓	✓	✓
Race fixed effects	✓	✓	✓	✓	✓
Observations	679	662	660	671	679
R^2	0.095	0.114	0.099	0.159	0.163
Adjusted R^2	0.076	0.094	0.079	0.141	0.145
					Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 6: Results of regression models predicting contact with immigrants based on the foreign-born share of the population in a non-immigrant's zip code of residence. Standard errors are cluster robust at the zip code level.

Contact and stereotypes about immigrants

To assess stereotyping towards immigrants, respondents were asked how much they agreed with a battery of statements presenting stereotypes about immigrants. These statements are adapted from scales designed to measure racial resentment towards Asian Americans (D. G. Kim 2022) and Latino Americans (Ocampo and Garcia-Rios 2020). Statement text is included in Appendix 3. Response options were "strongly disagree" (coded as 0), "somewhat disagree" (0.25), "not sure" (0.5), "somewhat agree" (0.75), and "strongly agree"

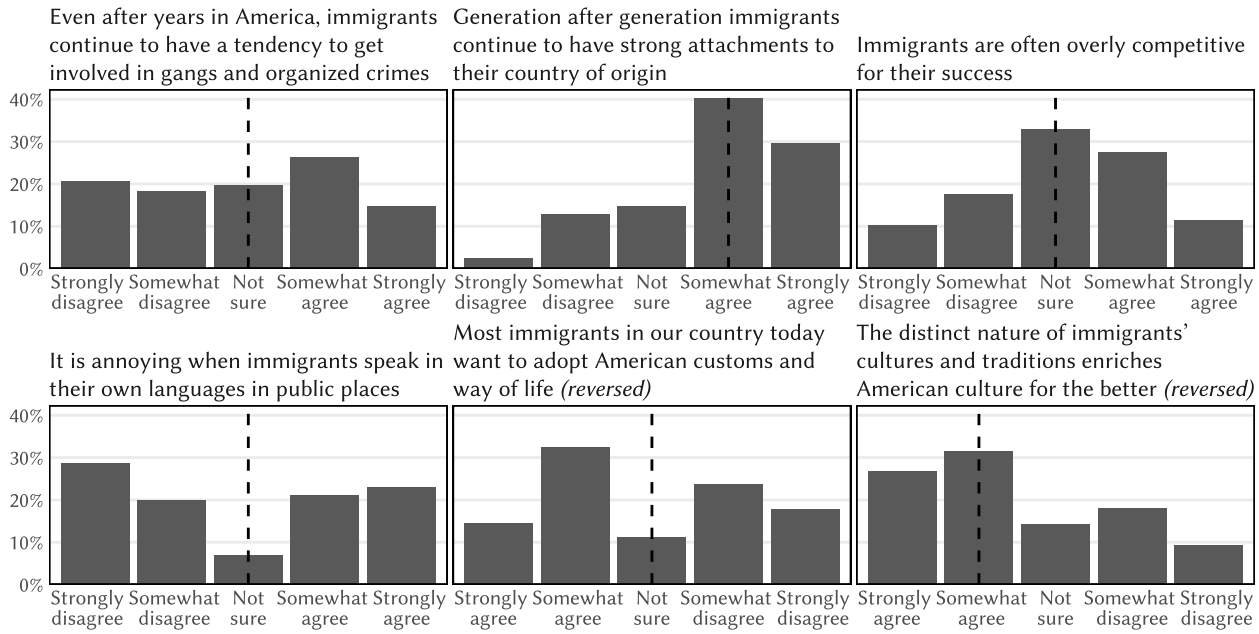

Figure 8: Distribution of agreement with stereotypes about immigrants among non-immigrant survey respondents. Dashed lines indicate the median response in each facet.

(1). Reverse coded options were mapped with signs flipped, so "strongly disagree" was coded as 1 and "strongly agree" coded as 0.

Figure 8 plots the distribution of responses to each statement. Responses to most question have a relatively normal shape with a median response of "not sure", with three exceptions. First, the median respondent somewhat agrees that "generation after generation immigrants continue to have strong attachments to their countries of origin". While this statement does not have a clearly negative valence, it may reflect stereotypes that immigrants are foreigners and not insiders in the United States. Second, the median respondent somewhat agrees that "the distinct nature of immigrants' cultures and traditions enriches American culture for the better". Agreement with this reverse-coded item may indicate a rejection of stereotypes of immigrant outsiderness,

by acknowledging that immigrant cultures can positively integrate into American culture. Finally, agreement with the statement "it is annoying when immigrants speak their own languages in public places" is polarized: while the modal respondent strongly disagrees with the statement, strong agreement is the second most common response. This statement is most clearly linked to raciolinguistic ideologies, as respondents who are annoyed by foreign languages may attach this negative association to immigrant groups in general, including those who speak English (Rosa and Flores 2017). The fact that this statement is more likely than any other to elicit a strong response may suggest that attitudes about language are more strongly held than those reflecting other stereotypes about immigrants, such as negative stereotypes about competitiveness or criminality. On the other hand, it is also possible that this statement receives stronger responses because it is a statement of emotion rather than a statement of fact. Non-immigrant respondents may feel more confident expressing a strong opinion about their own emotions than about matters of fact, where they may feel they do not have enough information to select a strong response.

An overall anti-immigrant resentment score was calculated for each respondent by taking the mean of their coded responses to each individual question, yielding a resentment score that ranges from 0, indicating strong disagreement with all negative statements and strong agreement with all reverse-coded statements, to 1, indicating strong agreement with all negative statements and strong disagreement with all reverse coded statements. Figure 9 plots the distribution of scores across respondents. Anti-immigrant resentment scores appear to follow a roughly normal distribution. The median and

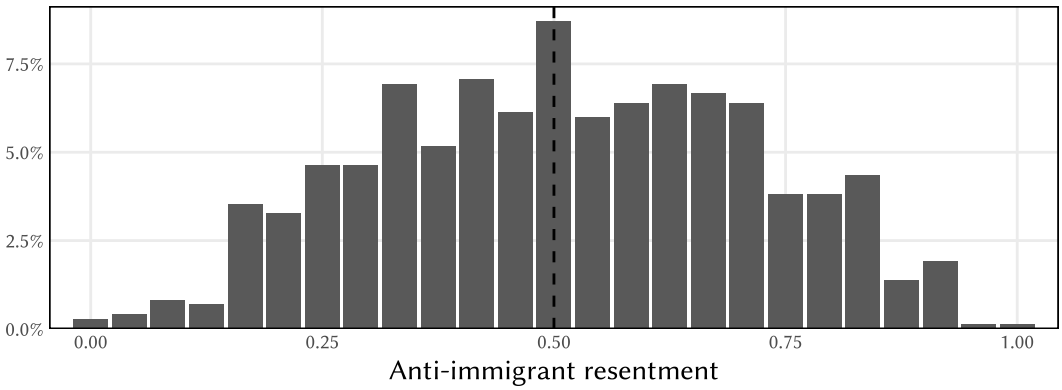

Figure 9: Distribution of immigrant resentment scores among non-immigrant survey respondents. Dashed line indicates median score.

modal respondent each attain a score of 0.5, and very small shares of respondents attain extreme scores near 0 or 1. There is a slightly higher share of respondents with scores above 0.5 than below.

To assess the relationship between non-immigrants' intergroup contact with immigrants and stereotyping of immigrants, I conducted a linear regression analysis predicting non-immigrant respondents' levels of anti-immigrant resentment based on five different independent variables: (1) their level of superficial contact with immigrants, whether they had engaged in deep contact with immigrants through (2) visiting an immigrant's home or inviting an immigrant to visit their home, (3) attending an event hosted by an immigrant, or (4) engaging in recreational activity with an immigrant, and (5) whether they had engaged in any of the three modes of deep contact with immigrants.

Results of this analysis are summarized in Table 7. Results suggest that superficial contact is not significantly associated stereotypes towards immigrants. On the other hand, all modes of deep contact except for attending immigrant-hosted events are associated with significant reductions in negative

	Dependent variable:				
	Immigrant resentment				
	(1)	(2)	(3)	(4)	(5)
Superficial contact	−0.032				
	(0.026)				
Visited home		−0.047*			
		(0.020)			
Attended an event			−0.019		
			(0.021)		
Recreational activity				−0.046*	
				(0.019)	
Any deep contact					−0.044*
					(0.017)
Age	0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Bachelor's degree	−0.099***	−0.099***	−0.102***	−0.099***	−0.097***
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Male	0.005	0.005	0.007	0.004	0.006
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Log zip code population density	−0.006	−0.005	−0.006	−0.005	−0.006
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Intercept	0.481***	0.487***	0.454***	0.467***	0.502***
	(0.063)	(0.065)	(0.071)	(0.071)	(0.064)
Immigrant generation fixed effects	✓	✓	✓	✓	✓
Race fixed effects	✓	✓	✓	✓	✓
Observations	669	653	650	661	669
R^2	0.116	0.122	0.115	0.122	0.123
Adjusted R^2	0.097	0.103	0.095	0.103	0.104
	Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$				

Table 7: Results of regression models predicting resentment towards immigrants based on the foreign-born share of the population in a non-immigrant's zip code of residence. Standard errors are cluster robust at the zip code level.

stereotyping. The combined measure of deep contact is associated with the most significant decrease in negative stereotyping.

While superficial contact is not significantly associated with a decrease in anti-immigrant stereotypes, the association is in the expected direction. This negative correlation could be explained by two possible relationships. On

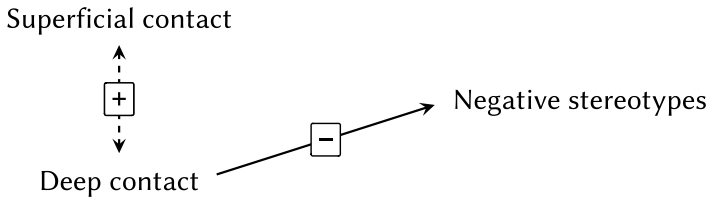

Figure 10: Hypothesized relationship between superficial contact, deep contact, and negative stereotypes. Superficial contact and deep contact are mutually positively associated, but only deep contact decreases negative stereotypes.

one hand, superficial contact may in fact dispel anti-immigrant stereotypes, but this test is underpowered to detect this effect. On the other hand, the association between superficial contact and stereotypes may appear because superficial contact is positively correlated with deep contact, and deep contact is in fact responsible for dispelling negative stereotypes. Figure 10 illustrates this hypothesized relationship.

To test this possibility, I conduct a mediation analysis of the relationship between superficial contact and immigrant stereotypes with deep contact acting as a mediator variable. Results of this analysis are summarized in Table 8. Model 1 first establishes that superficial contact is significantly correlated with deep contact. Models 2 and 3 then demonstrate that the magnitude of the association between superficial contact and anti-immigrant resentment decreases when a control for deep contact is added. Results of a Sobel test confirm that this decrease is significant and while the association was not significant to begin with, it is negligible after controlling for deep contact. (See Appendix 4 for methodological information about the Sobel test.)

In contrast, models 4, 5, and 6 test the complementary possibility that the negative association between deep contact and anti-immigrant resentment

	Dependent variable:					
	Deep contact	Immigrant resentment		Superficial contact	Immigrant resentment	
	(1)	(2)	(3)	(4)	(5)	(6)
Superficial contact	0.546***	−0.025	−0.002			−0.002
	(0.057)	(0.026)	(0.027)			(0.027)
Deep contact			−0.042*	0.231***	−0.042*	−0.042*
			(0.018)	(0.024)	(0.017)	(0.018)
Age	−0.006***	0.000	0.000	0.000	0.000	0.000
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Bachelor's degree	0.070	−0.100***	−0.097***	0.045*	−0.097***	−0.097***
	(0.036)	(0.017)	(0.017)	(0.021)	(0.017)	(0.017)
Male	0.005	0.002	0.003	−0.004	0.003	0.003
	(0.032)	(0.015)	(0.015)	(0.020)	(0.015)	(0.015)
Log zip code population density	0.017	−0.006	−0.005	0.015*	−0.005	−0.005
	(0.008)	(0.003)	(0.003)	(0.005)	(0.003)	(0.003)
Intercept	0.503**	0.474***	0.495***	0.255*	0.494***	0.495***
	(0.153)	(0.063)	(0.065)	(0.101)	(0.064)	(0.065)
Immigrant generation fixed effects	✓	✓	✓	✓	✓	✓
Race fixed effects	✓	✓	✓	✓	✓	✓
Sobel test			−0.023*			−0.001
			(0.011)			(0.006)
Observations	664	664	664	664	664	664
R^2	0.262	0.115	0.122	0.195	0.122	0.122
Adjusted R^2	0.246	0.095	0.101	0.178	0.103	0.101
						Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 8: Results of mediation analyses predicting anti-immigrant resentment based on superficial contact with deep contact acting as a mediator and based on deep contact with superficial contact acting as a mediator. Standard errors are cluster robust at the zip code level.

may be mediated by superficial contact. Like model 1, model 4 establishes that deep contact is significantly correlated with superficial contact. But unlike models 2 and 3, models 5 and 6 show that the relationship between deep contact and resentment is fundamentally unchanged when a control for superficial contact is added. The insignificant result of the Sobel test confirms that there is no evidence to suggest that superficial contact mediates the relationship between deep contact and anti-immigrant resentment.

This analysis suggests that while there is a true negative relationship between deep contact and anti-immigrant resentment, any association between superficial contact and resentment can be attributed almost entirely to superficial contact's correlation with deep contact. Superficial contact merely acts as a proxy for deep contact, the true explanatory variable.

Racial attitudes based on contact and stereotypes

To assess attitudes towards racial groups, the survey included a set of feeling thermometer questions. Respondents were shown the text "We would like to get your feelings toward some groups in society. We will show the name of a group and we'd like you to rate that group on a scale from very warm toward the group to very cool toward the group.[2] How would you rate the following?" Respondents were then presented with a set of groups that included the same racial categories. Response options were "very cool" (coded as 0), "cool" $\left(\frac{1}{6}\right)$, "somewhat cool" $\left(\frac{2}{6}\right)$, "neither warm nor cool" $\left(\frac{3}{6}\right)$, "somewhat warm" $\left(\frac{4}{6}\right)$, "warm" $\left(\frac{5}{6}\right)$, and "very warm" (1). This question wording is adapted from Reny and Barreto (2022).

Figure 11 plots the distribution of outgroup feeling thermometer ratings. Across all respondents, the modal outgroup feeling thermometer rating is "neither warm nor cold" for all outgroups. However, in all cases, a majority of respondents select a non-neutral response for their outgroup feeling thermometer, ensuring there will generally be adequate variation in the dependent variable to analyze predictors of outgroup favorability.

[2] Response options were randomly reversed. When respondents saw the reversed option set, the question text was similarly reversed to "on a scale from very cool toward the group to very warm toward the group."

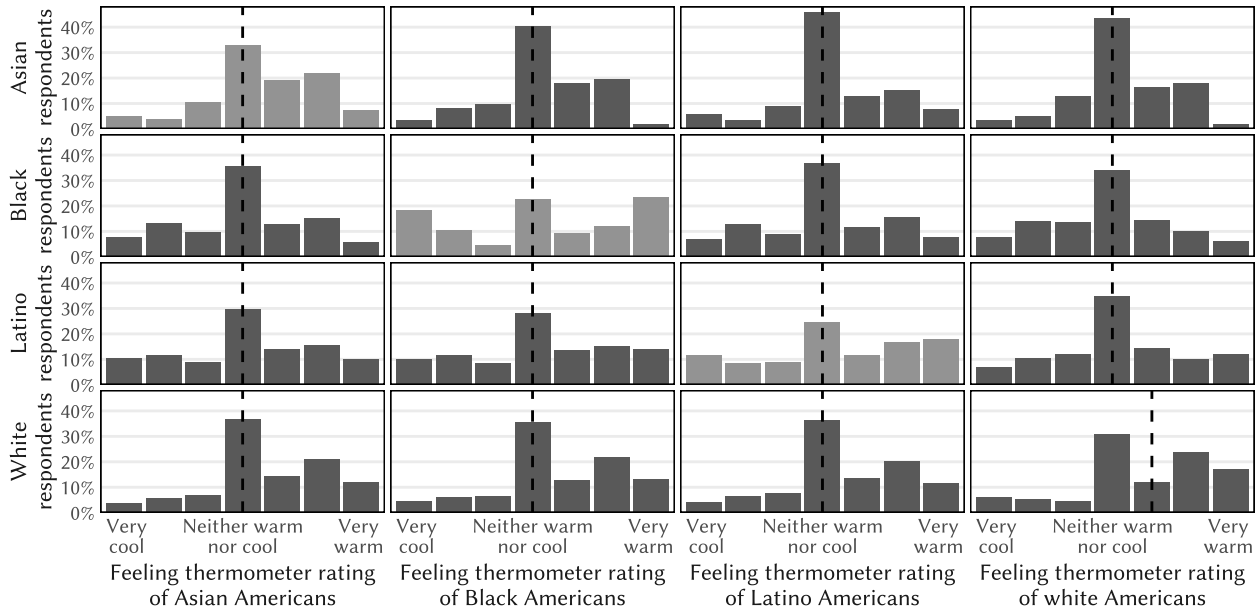

Figure 11: Distribution of feeling thermometer ratings of Asian, Black, Latino, and white Americans among Asian, Black, Latino, and white American survey respondents. Ingroup feeling thermometer ratings are shaded in a lighter color. Dashed lines indicate the median response in each facet.

To assess the relationship between outgroup attitudes and intergroup contact, I conducted a linear regression predicting group feeling thermometer ratings of based on respondents' levels of superficial contact with outgroups. This model uses the same samples and controls as those in Table 1.

Results in Table 9 show that for all outgroups, a respondent's level of superficial contact with members of that group is a significant predictor of more positive attitudes towards that group. While this fits with the predictions of my theory, it does not provide evidence for or against my proposed mechanism, that intergroup contact dispels negative group stereotypes.

	Dependent variable:			
	Asian FT	Black FT	Latino FT	White FT
	(1)	(2)	(3)	(4)
Superficial contact	0.147***	0.175***	0.189***	0.162***
	(0.027)	(0.040)	(0.026)	(0.039)
Age	0.001***	0.001	0.001***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)
Bachelor's degree	0.012	0.006	0.008	−0.026
	(0.013)	(0.020)	(0.013)	(0.020)
Male	−0.002	−0.016	−0.023	0.010
	(0.012)	(0.019)	(0.012)	(0.019)
Log zip code population density	−0.006	−0.003	−0.002	−0.004
	(0.003)	(0.005)	(0.003)	(0.004)
Intercept	0.391***	0.398***	0.389***	0.390***
	(0.039)	(0.070)	(0.046)	(0.065)
Race fixed effects	✓	✓	✓	✓
Observations	1,677	778	1,496	779
R^2	0.067	0.044	0.067	0.099
Adjusted R^2	0.063	0.036	0.062	0.091
	Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$			

Table 9: Results of regression models predicting feeling thermometer ratings of Asian, Black, Latino, and white Americans based on a respondent's level of superficial contact with members of that outgroup. Standard errors are cluster robust at the zip code level.

To test this mechanism, I conduct a mediation analysis following the method described by Baron and Kenny (1986) and Sobel (1982). A mediation analysis tests the hypothesis that there is an association between two variables, and that some or all of this association can be explained by a third intervening variable that is associated with both the independent and dependent variable. In this case, I test the hypothesis that the association between superficial contact and feeling thermometer ratings is mediated by racial resentment, as illustrated in Figure 12. To establish that the relationship between intergroup contact and outgroup attitudes is mediated by group stereotypes, I must show that (1) there is a significant relationship between contact and

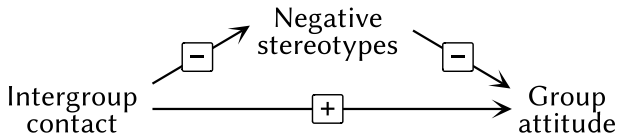

Figure 12: Hypothesized association between intergroup contact and group attitudes, mediated by negative group stereotypes.

attitudes, (2) there is a significant relationship between contact and stereotypes, (3) there is a significant relationship between stereotypes and attitudes, and (4) the relationship between contact and attitudes is weaker when controlling for stereotypes than when not controlling for stereotypes.

Table 10 shows the results of this mediation analysis. For all three outgroups under analysis – Asian, Black, and Latino Americans – superficial contact is significantly associated with both feeling thermometer ratings, the dependent variable, and racial resentment, the mediator. Additionally, when superficial contact and racial resentment are both used to predict feeling thermometer scores, racial resentment is a significant predictor. Finally, Sobel tests conducted in each analysis show that the inclusion of a mediator variable significantly reduces the explanatory power of the main independent variable. (See Appendix 4 for methodological information about the Sobel test.) However, superficial contact is still significantly associated with feeling thermometer ratings when controlling for racial resentment, meaning resentment does not fully mediate the relationship between contact and feeling thermometer ratings. This leads me to conclude that the relationship between intergroup contact and group attitudes is partially mediated by negative group stereotypes.

	Dependent variable:								
	Asian			Black			Latino		
	Resent.[1]	Feeling therm.[2]		Resent.[1]	Feeling therm.[2]		Resent.[1]	Feeling therm.[2]	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Superficial contact	−0.111***	0.149***	0.121***	−0.133***	0.182***	0.146***	−0.148***	0.193***	0.123***
	(0.025)	(0.027)	(0.027)	(0.036)	(0.041)	(0.039)	(0.019)	(0.027)	(0.025)
Racial resentment			−0.255***			−0.270***			−0.471***
			(0.028)			(0.034)			(0.032)
Age	−0.000	0.001***	0.001***	0.004***	0.001	0.002***	−0.000	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Bachelor's degree	−0.068***	0.013	−0.004	−0.094***	0.006	−0.019	−0.066***	0.008	−0.022
	(0.013)	(0.013)	(0.013)	(0.022)	(0.020)	(0.019)	(0.010)	(0.013)	(0.012)
Male	0.012	−0.001	0.001	0.042*	−0.016	−0.005	0.010	−0.024	−0.019
	(0.011)	(0.012)	(0.012)	(0.019)	(0.019)	(0.018)	(0.010)	(0.013)	(0.012)
Log zip code population density	0.005	−0.006*	−0.005	−0.010*	−0.004	−0.007	−0.002	−0.001	−0.002
	(0.003)	(0.003)	(0.003)	(0.004)	(0.005)	(0.005)	(0.002)	(0.003)	(0.003)
Intercept	0.522***	0.386***	0.520***	0.557***	0.403***	0.553***	0.573***	0.379***	0.649***
	(0.037)	(0.040)	(0.042)	(0.064)	(0.071)	(0.073)	(0.035)	(0.047)	(0.048)
Race fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sobel test			0.028***			0.036***			0.070***
			(0.007)			(0.011)			(0.010)
Observations	1,647	1,647	1,647	767	767	767	1,469	1,469	1,469
R^2	0.051	0.070	0.119	0.126	0.046	0.116	0.077	0.067	0.189
Adjusted R^2	0.047	0.066	0.115	0.117	0.037	0.107	0.073	0.062	0.184

Note: [1] Racial resentment; [2] Feeling thermometer; *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Table 10: Results of mediation analyses predicting (1) racial resentment scores based on superficial contact, (2) feeling thermometer ratings based on level of superficial contact, and (3) feeling thermometer ratings based on superficial contact and racial resentment. A Sobel test reports the decrease in predictive power of superficial contact between the second and third model. The analysis is conducted for each of three outgroup populations: Asian, Black, and Latino Americans. Standard errors are cluster robust at the zip code level.

Attitudes towards immigrants based on contact and stereotypes

To measure group attitudes towards immigrants, respondents were asked "In general, do you think immigration makes the U.S. better or worse, or does it not make much difference?" with response options of "Better off" (coded as 1), "Worse off" (0), "Doesn't make much difference" (0.5), and "Not sure" (excluded). Figure 13 plots the distribution of responses to these questions. Responses to this question are polarized, with 44% of respondents indicating that immigration makes the country worse off, 36% indicating it makes the country better off, and only 20% indicating that it "doesn't make much difference".

As in the previous analysis of racial group attitudes, I hypothesize that deep contact with immigrants is positively associated with group attitudes towards immigrants, and that this positive association is mediated by anti-immigrant stereotypes. This relationship is illustrated in Figure 12. To test this hypothesis, I conduct a mediation analysis. To confirm my hypothesis, the mediation analysis must show that (1) anti-immigrant resentment can be significantly predicted by deep contact, (2) group attitudes are significantly predicted by deep contact, (3) group attitudes are significantly predicted by anti-immigrant resentment, and (4) the magnitude of the association between group attitudes and deep contact decreases when anti-immigrant resentment is added as a control variable.

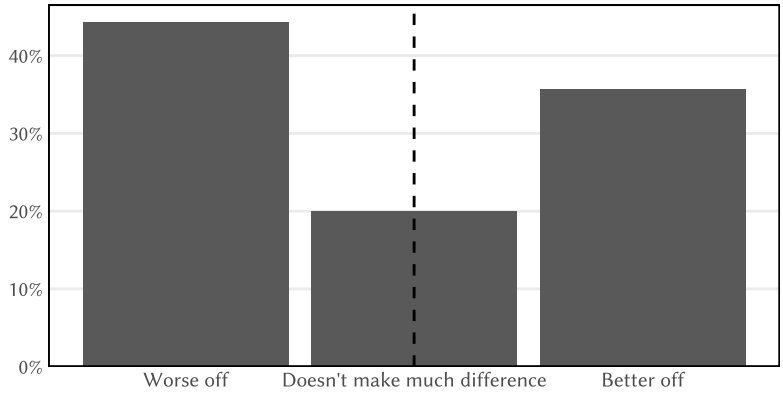

Figure 13: Distribution of attitudes towards immigration among non-immigrant survey respondents. Dashed line indicates median response.

Results of this analysis are summarized in models 1, 2, and 3 of Table 11. Model 1 demonstrates that anti-immigrant resentment is significantly predicted by deep contact. Model 2 demonstrates that group attitudes are significantly predicted by deep contact. Model 3 demonstrates that group attitudes are significantly predicted by anti-immigrant resentment and that when resentment is controlled for, the magnitude of the association between deep contact and group attitudes decreases. Results of a Sobel test confirm that this decrease is statistically significant. (See Appendix 4 for methodological information about the Sobel test.)

In contrast, models 4, 5, and 6 test the alternative possibility that deep contact actually mediates the relationship between anti-immigrant stereotypes and group attitudes towards immigrants. This analysis also passes all the requirements of a mediation analysis: anti-immigrant resentment is a significant predictor of both deep contact and group attitudes, deep contact is a significant predictor of group attitudes, and when deep contact is controlled for, the magnitude of the association between stereotypes and attitudes decreases.

	Dependent variable:					
	Resentment	Group attitude		Deep contact	Group attitude	
	(1)	(2)	(3)	(4)	(5)	(6)
Deep contact	−0.048*	0.176***	0.114***			0.114***
	(0.020)	(0.042)	(0.033)			(0.033)
Anti-immigrant resentment			−1.286***	−0.234*	−1.313***	−1.286***
			(0.060)	(0.096)	(0.059)	(0.060)
Age	0.000	−0.002*	−0.001*	−0.008***	−0.002**	−0.001*
	(0.000)	(0.001)	(0.000)	(0.001)	(0.000)	(0.000)
Bachelor's degree	−0.107***	0.179***	0.041	0.086	0.051	0.041
	(0.019)	(0.041)	(0.032)	(0.044)	(0.032)	(0.032)
Male	0.006	0.030	0.038	0.000	0.038	0.038
	(0.017)	(0.035)	(0.028)	(0.037)	(0.028)	(0.028)
Log zip code population density	−0.005	0.013	0.005	0.023*	0.008	0.005
	(0.004)	(0.008)	(0.007)	(0.009)	(0.007)	(0.007)
Intercept	0.449***	0.714***	1.291***	0.885***	1.392***	1.291***
	(0.052)	(0.116)	(0.102)	(0.173)	(0.093)	(0.102)
Immigrant generation fixed effects	✓	✓	✓	✓	✓	✓
Race fixed effects	✓	✓	✓	✓	✓	✓
Sobel test			0.062*			−0.027*
			(0.026)			(0.014)
Observations	572	572	572	572	572	572
R^2	0.136	0.154	0.468	0.174	0.456	0.468
Adjusted R^2	0.116	0.134	0.455	0.154	0.444	0.455
						Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 11: Results of mediation analyses predicting anti-immigrant resentment based on superficial contact with deep contact acting as a mediator and based on deep contact with superficial contact acting as a mediator. Standard errors are cluster robust at the zip code level.

However, the size of this decrease is noticeably smaller in model 6 compared to model 3, suggesting that deep contact is a weaker moderating variable for anti-immigrant resentment than resentment is for contact.

This analysis suggests that there may be some degree of reciprocal mediation between anti-immigrant stereotypes and deep contact when predicting group attitudes towards immigrants. This makes intuitive sense: deep contact with immigrants may break down anti-immigrant stereotypes, leading to more

positive evaluations of immigrants as a group, and at the same time reductions in anti-immigrant stereotypes may make individuals more willing to engage in deep contact with immigrants, giving them more opportunities to see the positive influence that immigrants have on their communities. This suggests that deep contact and dispelling stereotypes may form a virtuous cycle.

However, anti-immigrant stereotypes act as a stronger mediator for deep contact's relationship with group attitudes than deep contact does for anti-immigrant stereotype's relationship. This suggests that the primary chain of causation starts with deep contact with immigrants, which dispels anti-immigrant stereotypes, which improves group attitudes towards immigrants. While a backchanneling relationship may also exist, it is of secondary importance given the much smaller effect size of its mediation.

DISCUSSION

The analyses in this chapter demonstrate that contact with outgroup members can significantly affect individual's conceptions of that outgroup. Outgroup contact is associated with decreases in negative outgroup stereotypes, improved outgroup attitudes, and increases in pro-outgroup policy preferences. However, the type of contact is important. While Analysis 1 finds some evidence that superficial contact with outgroups is associated with positive effects, Analysis 2 suggests that deep contact, when measured correctly, is a better predictor of attitude changes. Additionally, mediation analysis performed in Analysis 2 suggests that much of the positive association between superficial contact and attitude change may be an artifact of the high degree

of correlation between superficial and deep contact. This suggests that deep contact is the only true predictor of attitude change.

The analyses in this chapter also demonstrate that outgroup context – the outgroup population in an individual's proximate environment – is positively associated with both superficial and deep contact. However, this does not mean that outgroup context has a straightforward positive relationship with attitudes towards the outgroup. The association between outgroup context and negative outgroup stereotypes is moderated by outgroup contact. Outgroup context increases the likelihood of outgroup contact, and for those who do engage in outgroup contact, outgroup context is also associated with decreases in negative outgroup stereotypes. But for those who do not engage in outgroup contact, increased outgroup context is associated with increased negative stereotyping. This helps to square the tension between theories following from Allport (1954), which argue that interactions with outgroup members can decrease prejudice, and those following from Blalock (1967) and Blumer (1958), which argue that outgroup size and proximity trigger increased prejudice.

This leaves one key open question. How can we explain why outgroup context translates into contact in some instances, reducing prejudice, but not in others, leaving prejudice unchanged or even increased? In the following chapters, I examine one factor that can make it more or less likely for outgroup context to translate into outgroup contact: language.

Chapter 4

LANGUAGE BARRIERS AND INTERGROUP CONTACT

In the previous chapter, I demonstrated that living close to members of an outgroup population is associated with increased intergroup contact and reduced outgroup stereotyping, and, as a result, improved attitudes towards members of the outgroup. This chapter examines how language barriers can disrupt the positive relationship between outgroup context and intergroup contact and reinforce negative stereotypes.

I argue that language is one variable that can help to explain the divergent predictions of group threat theory (Blalock 1967; Blumer 1958) and intergroup contact theory (Allport 1954). Hostilities are often observed in areas where groups are geographically segregated (Enos 2017). In these areas, the proximate outgroup population may raise the salience of negative outgroup stereotypes while segregation reduces the opportunity for positive contact to dispel these stereotypes. I propose that language barriers may play a similar role to geographic segregation in shaping intergroup contact, stereotypes, and attitudes. I hypothesize that proximity to a large outgroup population is associated with increased negative stereotyping and more negative attitudes – as predicted by Blalock (1967) and Blumer (1958) – when language barriers prevent meaningful interaction, but that outgroup context is associated with increased intergroup contact, reduced negative stereotyping, and more supportive attitudes – as predicted by Allport (1954) – when a shared language makes positive contact possible.

According to the theory of raciolinguistic ideologies, attitudes about language and attitudes about racial and ethnic groups are inextricably linked: our feelings towards languages and our feelings towards the groups of people that primarily speak them cannot be separated (Rosa and Flores 2017). As a result, Americans' stereotypes about language are not limited to foreign language speakers; instead, these stereotypes shape attitudes about the entire group, including members who only speak English. I argue that raciolinguistic ideologies particularly affect attitudes towards Latinos and Asian Americans in the United States, because both groups are stereotyped as "foreign" (Zou and Cheryan 2017). Because English is the language of the dominant group in the United States, the use of non-English languages by some members of a group may reinforce the stereotyped foreignness of the group as a whole.

In this chapter, I examine the relationship between the size of local populations that do and do not speak English and proximate English speakers' interactions with, stereotypes of, and attitudes towards the group. I demonstrate that proximity to non-English-speaking outgroup members reduces English speakers' likelihood of engaging in intergroup contact and reinforces negative stereotypes, ultimately leading to more negative outgroup attitudes. On the other hand, proximity to English-speaking outgroup members increases intergroup contact and reduces negative stereotyping, resulting in more positive outgroup attitudes.

Raciolinguistic ideologies

According to Rosa and Flores's (2017) theory of raciolinguistic ideologies, attitudes toward ethnic groups are intertwined with attitudes toward language communities. Rosa and Flores (2017) argue that in the United States, dominant stereotypes about language shape the attitudes of members of both dominant and marginalized groups. Stereotypes that cast non-English languages as alien or deficient reinforce ideas about the foreignness or inferiority of the groups that speak them. These attitudes are not limited to non-English speakers; when raciolinguistic ideologies shape attitudes towards a group, they are applied even to English-monolingual group members.

In the United States, raciolinguistic ideologies should most significantly shape attitudes towards Latinos and Asian Americans, because both groups are strongly associated with non-English languages.

The "Hispanic/Latino" identity category was originally defined based on the use of the Spanish language and continues to be closely linked to Spanish (Mora 2014). As a result, Latino identity is linked to language more than any other group identity. Therefore, we should expect experiences related to the Spanish language to affect attitudes towards Latinos as a whole – even those who do not speak Spanish.

One may expect language to play less of a role in attitudes towards Asian Americans because the Asian American identity category is not defined by a single language in the way that Latino identity is. Nonetheless, Asian Americans and Latinos are both stereotypically positioned as "foreign" in American racial attitudes (C. J. Kim 1999; Zou and Cheryan 2017). The use of

non-English languages may reinforce this stereotype, contributing to dominant groups' prejudices towards Asian Americans as "permanently foreign" (C. J. Kim 1999, 109).

Zou and Cheryan (2017) find that both Latino and Asian Americans are stereotyped as "not speaking English very well" and Huynh, Devos, and Smalarz (2011) find that Latino and Asian Americans are frequently perceived as non-native English speakers. Schildkraut (2007) finds that a majority of Americans believe that "speaking English should be important in making someone a true American" (603). This suggests that perceptions of Latino and Asian American's English language skills may contribute to each group's stereotyped position as foreign rather than American.

Intergroup contact and group threat

Outgroup context is associated with both increased intergroup contact and increased group threat. Outgroup contact can dispel negative stereotypes and improve intergroup attitudes (Aberson 2015; Allport 1954; Paluck, Green, and Green 2018; Stephan and Stephan 1984; Zingora, Vezzali, and Graf 2021). On the other hand, group threat is associated with increased negative stereotyping more hostile outgroup attitudes (Aberson 2015; Blalock 1967; Blumer 1958; Bobo and Hutchings 1996; Dixon and Rosenbaum 2004). Therefore, to understand the effects of outgroup context, we must understand why the effects of intergroup contact dominate in some circumstances while the effects of group threat dominate in others.

Enos (2017) argues that segregation is one variable that can explain whether intergroup contact or outgroup threat will dominate. When groups

are integrated, outgroup threat can be overcome by the opportunity for positive intergroup contact. On the other hand, if groups are segregated, positive contact is unlikely to occur. Rocha and Espino (2009) corroborate this theory in a study of white raciolinguistic attitudes toward Latinos. They find that in segregated areas with large Spanish-speaking populations, white Americans are more likely to support English-only legislation and restrictive immigration policies.

While Rocha and Espino (2009) demonstrate the negative effects of geographic segregation between English and Spanish speakers, I argue that language itself may predict whether outgroup threat or intergroup contact will dominate in a particular context. Just as residential segregation reduces opportunities for positive intergroup contact, language barriers can prevent meaningful contact, even in physically integrated populations.

Additionally, Zingora, Vezzali, and Graf (2021) find that intergroup contact primarily results in attitude change when the content of the contact is inconsistent with pre-existing stereotypes. When individuals have negative experiences of intergroup contact, this can increase negative stereotyping and worsen group attitudes (Aberson 2015). Therefore, if an individual stereotypes a group as foreign, contact that involves struggling with a language barrier would be consistent with this stereotype and unlikely to lead to attitude change.

Further, Wilder (1984) finds that intergroup contact is less effective in producing attitude change when the interaction is with a perceived atypical outgroup member. This means that in areas where many outgroup members have limited English proficiency, interactions with English-fluent outgroup

members may have less of a positive effect on group attitudes, because individuals can dismiss these interactions as atypical. Conversely, in contexts where many outgroup members have high English proficiency, the opposite may be true: individuals may be less likely to project negative attitudes onto an outgroup after an interaction with an outgroup member is made negative by language barriers, because non-English-speaking outgroup members may be seen as less typical of the group.

Because language barriers reduce opportunities for stereotype-inconsistent intergroup contact, group threat and negative raciolinguistic stereotypes can go unchecked in contexts where groups are linguistically separated. In contrast, in areas with larger English-speaking outgroup populations, there are more opportunities for meaningful contact that may dispel negative raciolinguistic stereotypes.

THEORY

Based on this literature, I theorize that the causal pathway between outgroup context and outgroup attitudes presented in Chapter 3 can be refined by considering the linguistic profile of the individual and the outgroup in question. Specifically, outgroup context in the United States can be divided into two categories: English and non-English outgroup context. I argue that while both English and non-English outgroup context may trigger outgroup threat responses, only English outgroup context is likely to lead to intergroup contact that can overcome this threat.

Both English and non-English outgroup context can increase perceptions of outgroup threat. Newman, Hartman, and Taber (2012) show that

exposure to non-English-speaking populations is associated with threat responses among English monolingual Americans. But English outgroup context can also create a sense of group threat: for example, group threat is often used to characterize dynamics between Black and white Americans (Blalock 1967; Blumer 1958; Bobo and Hutchings 1996; Bobo 1999). While it should be acknowledged that Black American English is itself subject to raciolinguistic stereotyping (Baugh 2002; Rosa and Flores 2017), Black and white Americans are both English-dominant populations and do not face major language barriers communicating with each other. Outgroup threat, whether activated by English-speaking or non-English-speaking outgroup members, is associated with increased prevalence of negative group stereotypes (Dixon and Rosenbaum 2004).

However, English and non-English outgroup context also create opportunities for English and non-English intergroup contact, respectively (E. Schlueter and Scheepers 2010). Contact between English speakers may exhibit the features of deep contact that Allport (1954) identifies as necessary for dispelling negative group stereotypes. In contrast, contact between an English speaker and a non-English speaker is unlikely to exhibit these features because it is difficult for interactions across language barriers to be more than superficial (Allport 1954; Carey-Wood et al. 1995; J. Kim 2012; Phillimore 2011; Tip et al. 2019; Vervoort, Dagevos, and Flap 2012). Additionally, given that stereotypes about language are a source of racial stereotypes (Huynh, Devos, and Smalarz 2011; Rosa and Flores 2017; Zou and Cheryan 2017), non-English contact may reinforce negative racial stereotypes.

Based on this theoretical foundation, I propose that raciolinguistic context shapes outgroup attitudes through the following mechanisms.

First, English outgroup context is associated with increased likelihood of English intergroup contact, while non-English outgroup context is associated with increased likelihood of non-English intergroup contact. Additionally, outgroup context is associated with increased group threat regardless of language.

Second, each of these variables have a relationship with negative outgroup stereotypes. English intergroup contact has a negative relationship with negative stereotypes because it has the potential to dispel stereotypes. On the other hand, group threat and non-English intergroup contact have positive associations with negative stereotypes because they have the potential to reinforce stereotypes.

Finally, negative stereotypes have a negative association with group attitudes, and group attitudes have a positive association with policy preferences, as demonstrated in Chapter 3. These mechanisms imply that English outgroup context will decrease negative stereotypes and improve group attitudes and policy preferences, while non-English outgroup context will increase negative stereotypes and worsen group attitudes and policy preferences. Figure 14 illustrates this hypothesized pathway.

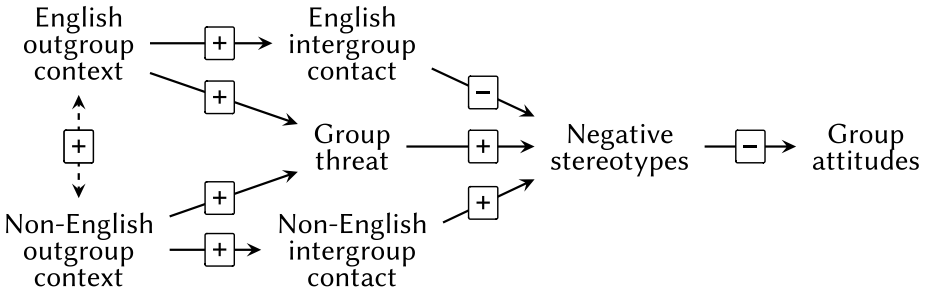

Figure 14: Causal pathway between outgroup raciolinguistic context and outgroup attitudes.

One complicating factor for an analysis of the differential effects of English and non-English outgroup context is that these two variables are likely to be positively correlated. For example, areas of the United States with larger Asian American populations usually have both larger English-speaking Asian American populations and larger non-English-speaking Asian American populations. This may be driven by generational effects: while immigrants who arrive in the United States at older ages often experience difficulty with English, children who immigrate at a young age or are born in the United States to immigrant parents generally grow up to be English dominant (Jia, Aaronson, and Wu 2002; Kohnert, Bates, and Hernandez 1999; Yeni-Komshian, Flege, and Liu 2000). This means that when the non-English-speaking population of a particular group in an area increases, the English-speaking population will generally also increase when members of the group raise English-speaking children.

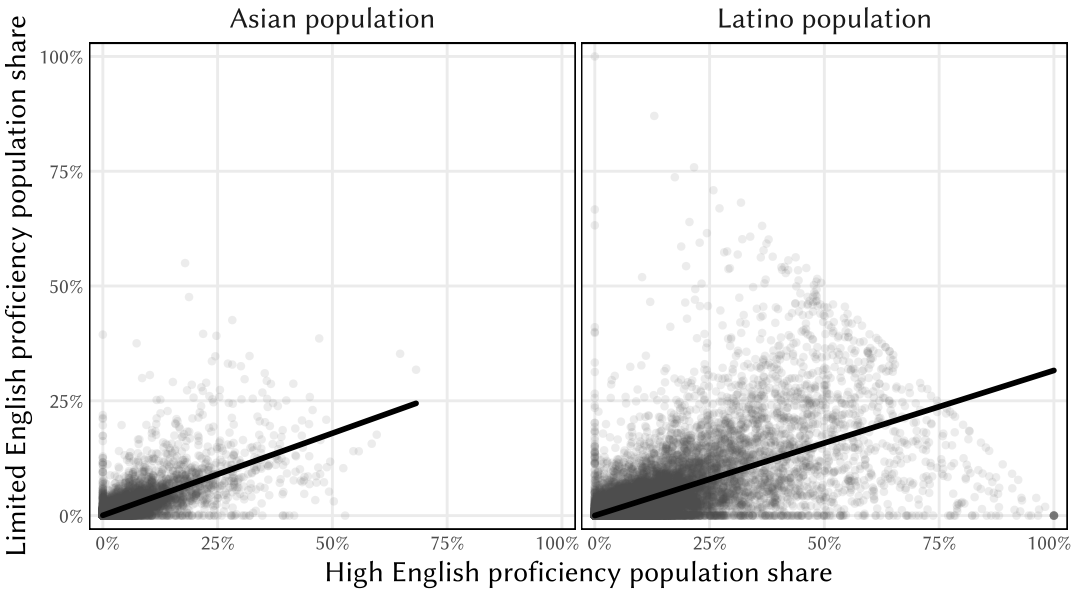

Figure 15: Correlation between the high English proficiency and low English proficiency population shares of Asian and Latino Americans across zip codes.

Analysis of data from the American Community Survey five-year aggregation from 2018–2022, retrieved from IPUMS NHGIS (Manson et al. 2023), shows that this relationship generally holds across zip codes in the United States. As illustrated in Figure 15, the share of a zip code's population made up of high English proficiency (HEP) Asian or Latino Americans is positively correlated with the share made up of low English proficiency (LEP) members of the same group. Table 12 summarizes the results of a linear regression model predicting a zip code's LEP population share based on its HEP population share for Asian and Latino Americans. Results indicate that for both groups, each percentage point increase in the share of a zip code's population made up of HEP members of the group is expected to coincide with about a one-third percentage point increase in the group's LEP population share.[3]

[3] Of course, this relationship does not hold at the extremes. For example, in a zip code with a 100% Latino population, an increase in the HEP population share would necessitate a decrease in the

	Dependent variable:	
	LEP population share in zip code	
	Asian population	Latino population
	(1)	(2)
HEP population share in zip code	0.358***	0.316***
	(0.008)	(0.006)
Intercept	0.000***	0.000
	(0.000)	(0.000)
Observations	32,476	32,476
R^2	0.515	0.425
Adjusted R^2	0.515	0.425
	Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$	

Table 12: Results of regression models predicting the share of a zip code's population made up of LEP Asian or Latino Americans based on share of the zip code's population made up of HEP Asian or Latino Americans, respectively. Standard errors are heteroskedasticity consistent.

Given this positive correlation, analyses of the effects of raciolinguistic context should yield the most accurate results when English and non-English outgroup context are used as covariates in a single model. An analysis of English outgroup context that does not control for the effects of non-English outgroup context is likely to produce biased results, as is an analysis of non-English outgroup context that does not control for the effects of English outgroup context.

In the remainder of this chapter, I analyze the relationship between raciolinguistic context and attitudes towards racial groups, to test the overall prediction of my theory that English outgroup context is associated with more positive attitudes towards a group while non-English outgroup context is associated with more negative attitudes.

LEP population share. But this limitation only applies to the small minority of zip codes that are almost entirely populated by Latinos or Asian Americans. In most zip codes, where Asian or Latino Americans make up anywhere between a small minority and a moderate majority of the population, there is a generally positive relationship between HEP and LEP populations.

Then, I conduct further analyses to test the individual steps in the causal pathway illustrated in Figure 14. First, I test the hypothesis that English outgroup context is associated with increased English outgroup contact while non-English outgroup context is associated with increased non-English outgroup contact. Then, I test the hypothesis that English outgroup contact is associated with reduced negative stereotyping, while non-English outgroup contact is associated with increased negative stereotyping. Finally, I test the hypothesis that English outgroup contact is associated with improved outgroup attitudes and non-English outgroup contact is associated with worsened outgroup attitudes, and that these associations are driven by differences in stereotyping.

METHOD

To analyze associations between raciolinguistic context and outgroup attitudes, I use two main datasets: responses to the Nationscape survey (Holliday et al. 2021; Tausanovitch and Vavreck 2021) and YouGov Daily Surveys. See Appendix 1 for more information on these datasets. Because the Nationscape survey is a general political survey, it only includes one operationalization of racial attitudes: group favorability. This allows me to test the overall prediction of my theory: that raciolinguistic context affects outgroup attitudes. Given that the Nationscape survey includes a large sample size, it provides adequate power to perform subgroup analyses across Asian, Black, Latino, and white respondents to test whether raciolinguistic context has similar associations for members of different racial groups. This provides a test of Rosa

and Flores's (2017) argument that raciolinguistic ideologies are practiced by members of both dominant and marginalized groups.

While the YouGov Daily Surveys have a smaller overall sample size than Nationscape, they include more specific operationalizations of the variables of interest in this analysis. The surveys include questions about contact with English speakers and non-English speakers, stereotypes about different racial groups and about immigrants, and attitudes towards different racial groups and towards immigrants. Using these variables, I can conduct analyses of each individual step in the theorized causal pathway presented in Figure 14.

To operationalize raciolinguistic context, I use census data retrieved from IPUMS NHGIS (Manson et al. 2023) about each respondent's current zip code. To predict attitudes towards Asian Americans, I use the share of the zip code's total population made up of Asian Americans with limited English proficiency (LEP) and high English proficiency (HEP). For example, 5.9% of the population of zip code 90210 is made up of Asian Americans: 3.8% with high English proficiency and 2.0% with limited English proficiency. Therefore, a respondent who lives in zip code 90210 would have their attitude towards Asian Americans predicted by a model including a value of 0.038 for the HEP Asian population share and 0.020 for the LEP Asian population share. Similarly, to predict attitudes towards Latinos, I use the share of the population made up of HEP and LEP Latinos. For example, the zip code 90210 includes 5.1% HEP Latino residents and 0.8% LEP Latino residents, so a model predicting attitudes toward Latinos would include the values 0.051 and 0.008 for a respondent living in that zip code. Finally, to predict attitudes towards immigrants in general, I use the share of the population made up of HEP English as a second language (ESL)

speakers and LEP speakers. For example, the zip code 90210 includes 29.4% HEP ESL speakers and 8.9% LEP speakers.

English language proficiency is derived from a question on the American Community Survey asking whether an individual speaks English "very well," "well," "not well," or "not at all." These four response categories are collapsed into "very well" and "less than 'very well'" in most datasets released by the Census Bureau. I categorize those who speak English "less than 'very well'" as having limited English proficiency (LEP) and those who speak it "very well" as having high English proficiency (HEP). This matches the definition of limited English proficiency used by organizations such as the Department of Justice's Civil Rights Division and the Department of Health and Human Services' Office of Minority Health, reflecting the population that may face language barriers when communicating in English (Federal Coordination and Compliance Section 2020; Olson 2023).

ANALYSIS

Racial outgroup favorability based on raciolinguistic context

To test the association between raciolinguistic context and outgroup attitudes, I analyze English-monolingual, non-immigrant Nationscape participants' responses to a block of questions on the asking about group favorability. The block of questions was introduced with "Here are the names of some groups that are in the news from time to time. How favorable is your impression of each group or haven't you heard enough to say?" and then listed several groups, including "Asians" and "Latinos". Response options were "very favorable" (coded as 1), "somewhat favorable" (0.75), "somewhat unfavorable"

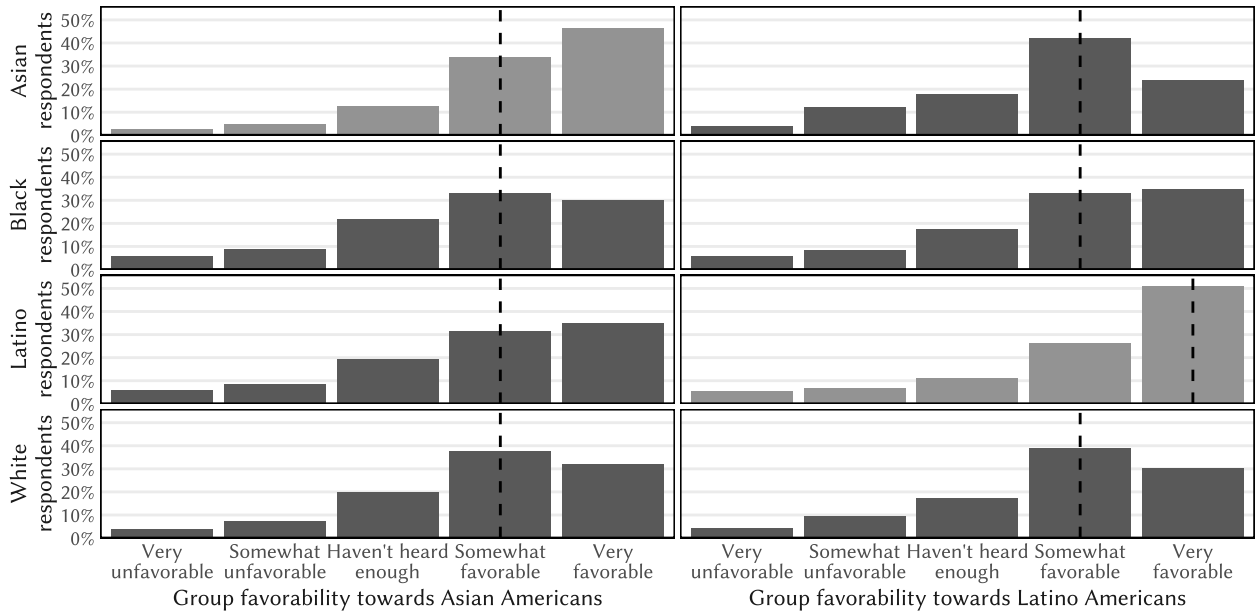

Figure 16: Distribution of absolute and relative group favorability scores towards Latino and Asian Americans for English-monolingual, US-born Asian, Black, Latino, and white survey respondents. Ingroup favorability is shaded in a lighter color. Dashed lines indicate the median response in each facet.

(0.25), "very unfavorable" (0), and "haven't heard enough" (0.5). Figure 16 shows the distribution of group favorability scores towards Latino and Asian Americans in the Nationscape survey, separated by the race of the respondent. Most ingroup-outgroup pairs follow a similar distribution, with the modal respondent rating an outgroup as "somewhat favorable", and very few respondents giving an unfavorable rating to an outgroup. Exceptions are Black appraisals of Latinos and Latino appraisals of Asian Americans, where the modal response is "very favorable", although "somewhat favorable" is still the median response.

I fit linear regression models to predict respondents' group favorability towards Asian Americans based on two main independent variables: the HEP

and LEP Asian American shares of the population of the respondent's zip code. I follow the same process to predict attitudes towards Latinos based on the HEP and LEP Latino share of the zip code. I run separate regressions for Asian, Black, Latino, and white respondents. Because this analysis focuses on outgroup attitudes, I exclude Asian American respondents from the analysis of attitudes towards Asian Americans and Latino respondents from the analysis of attitudes towards Latinos. (I analyze the ingroup attitudes of Asian Americans and Latinos in Chapter 5.) I include controls for the respondent's age, education, gender, immigrant status, and multilingualism, and the population density of the respondent's zip code. I also include fixed effects for the week the survey was fielded.

Regression results, summarized in Table 13, show that the size of the high English proficiency Asian American population in an individual's zip code is generally associated with more positive attitudes towards Asian Americans, while the size of the low English proficiency population is associated with more negative attitudes. This relationship generally holds across racial groups: models 1, 2, and 3 show that the HEP population is associated with more positive attitudes and the LEP population with more negative attitudes for Black, Latino, and white respondents. The association for the LEP population fails to meet the $p < 0.05$ level of significance within the Black subset, but the point estimate is similar to that observed in the Latino and white subsets.

	Dependent variable:		
	Asian group favorability		
	Black subset	Latino subset	White subset
	(1)	(2)	(3)
HEP Asian American population share in zip code	0.319**	0.322***	0.246***
	(0.117)	(0.069)	(0.049)
LEP Asian American population share in zip code	−0.202	−0.326**	−0.308**
	(0.199)	(0.095)	(0.089)
Age	0.000	−0.001***	−0.000*
	(0.000)	(0.000)	(0.000)
Bachelor's degree	0.049***	0.044***	0.076***
	(0.007)	(0.006)	(0.002)
Foreign-born	−0.001	−0.032***	−0.007
	(0.012)	(0.007)	(0.006)
Multilingual	−0.038***	0.002	−0.022***
	(0.010)	(0.005)	(0.005)
Log zip code population density	0.001	0.004**	0.011***
	(0.001)	(0.001)	(0.001)
Intercept	0.394***	0.493***	0.376***
	(0.025)	(0.022)	(0.010)
Survey week fixed effects	✓	✓	✓
Observations	52,507	68,853	328,057
R^2	0.012	0.014	0.026
Adjusted R^2	0.010	0.013	0.026
	Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$		

Table 13: Results of regression models predicting Black, Latino, and white American respondents' group favorability ratings of Asians based on the HEP and LEP Asian American population shares of their zip codes of residence. Standard errors are cluster robust at the zip code level.

In contrast to those predicting attitudes towards Asian Americans, models predicting Latino group favorability show more variation across racial groups. Table 14 summarizes results of models predicting absolute and relative

	Dependent variable:		
	Latino group favorability		
	Asian subset	Black subset	White subset
	(1)	(2)	(3)
HEP Latino population share in zip code	0.081	0.198*	0.295***
	(0.120)	(0.083)	(0.035)
LEP Latino population share in zip code	−0.059	−0.089***	−0.110***
	(0.038)	(0.026)	(0.016)
Age	−0.002***	0.000	−0.000***
	(0.000)	(0.000)	(0.000)
Bachelor's degree	−0.003	0.045***	0.063***
	(0.011)	(0.007)	(0.002)
Foreign-born	−0.081***	−0.012	−0.016*
	(0.009)	(0.012)	(0.007)
Multilingual	−0.013	−0.045***	0.016**
	(0.009)	(0.010)	(0.005)
Log zip code population density	−0.003	0.008***	0.014***
	(0.003)	(0.001)	(0.001)
Intercept	0.514***	0.385***	0.318***
	(0.044)	(0.027)	(0.011)
Survey week fixed effects	✓	✓	✓
Observations	19,902	52,531	328,025
R^2	0.022	0.011	0.022
Adjusted R^2	0.018	0.010	0.022
	Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$		

Table 14: Results of regression models predicting English-monolingual, US-born white, Black, and Asian American survey respondents' group favorability ratings of Latinos based on the HEP and LEP Latino population shares of their zip codes of residence. Standard errors are cluster robust at the zip code level.

Latino group favorability among Asian, Black, and white survey respondents. Models 1 and 2, predicting attitudes among white and Black respondents, respectively, find that the size of the high English proficiency Latino population in a respondent's zip code is associated with more positive group attitudes and the size of the proximate low English proficiency population is associated with more negative attitudes. On the other hand, model 3 finds that neither of the

associations between outgroup context and Latino group attitudes are statistically significant within the Asian American subset. This may be attributed in part to the comparatively small sample of Asian Americans. However, the insignificant point estimates are also smaller in magnitude than those in the Black and white subsets, suggesting that the weaker relationship between context and attitudes among Asian Americans may not be entirely explained by a lack of statistical power.

These results support the hypotheses that proximity to high English proficiency Latino or Asian American populations is associated with more positive outgroup attitudes, while proximity to low English proficiency Latino or Asian American populations is associated with more negative outgroup attitudes. This supports the theory that exposure to non-English speaking populations can reinforce Americans' stereotypes about Asian and Latino foreignness.

Effect sizes for group attitudes towards Asian American were generally larger than for those towards Latinos. Racial triangulation theory provides one possible explanation for this difference. According to the theory, Asian Americans are primarily negatively stereotyped based on one dimension – foreignness – while Latino Americans are stereotyped on two separate axes – foreignness and socioeconomic inferiority (Zou and Cheryan 2017). For English-monolingual Americans, experiencing a language barrier with a member of an outgroup may reinforce negative stereotypes of foreignness about that group, while communicating with an outgroup member in English may counter these stereotypes. Because this is the primary form of stereotyping of Asian Americans, this is likely to have a large impact on group attitudes towards Asian

Americans. On the other hand, because Latino Americans are also negatively stereotyped as socioeconomically inferior, linguistic experiences may only affect a smaller portion of an individual's anti-Latino stereotypes, and therefore have a smaller effect on group attitudes towards Latinos. In the following analysis, I test the effect of contact with English and non-English speakers on negative stereotypes towards Asian and Latino Americans.

These results provide mixed evidence for Rosa and Flores's (2017) argument that raciolinguistic ideologies may be reproduced by both dominant and marginalized groups. Both analyses did find similar associations in more than one racial group, proving that the effects of raciolinguistic context on attitudes are not unique to white Americans. Latino and white attitudes towards Asian Americans were positively associated with the size of the HEP population and negatively associated with the size of the LEP population. The analysis did not show a statistically significant association between Black respondents' attitudes towards Asian Americans and the size of the LEP Asian American population in their zip codes, although the point estimate of the association was similar to that in the Latino and white subsets, and the association with the HEP Asian American population was positive and statistically significant.

Black and white attitudes towards Latino Americans similarly showed a positive association with the size of the HEP population and a negative association with the size of the LEP population. However, the clear outlier among the models presented in this analysis is the relationship between Asian Americans' outgroup context with and attitudes towards Latinos. Asian Americans' attitudes towards Latino Americans did not show a statistically significant association with either HEP and LEP Latino outgroup context, and

both point estimates were smaller than those observed among Black and white respondents.

One possible explanation for this null result may be found in racial triangulation theory and social identity theory. Both Latino and Asian Americans are stereotyped as foreign (Zou and Cheryan 2017), a stereotype which language barriers may reinforce. However, Latinos are additionally stereotyped as socioeconomically inferior while Asian Americans are not (Zou and Cheryan 2017). Social identity theory argues that when individuals evaluate ingroups and outgroups, one strategy they use to maintain their sense of positive distinctiveness is to select an axis of comparison that favors their ingroup (Tajfel and Turner 1979). Asian Americans may therefore be motivated to evaluate Latinos along the axis of socioeconomic inferiority, on which Asian Americans are stereotypically placed higher, rather than the axis of foreignness, on which they are not. As a result, experiences of language barriers may have a smaller effect on Asian American's attitudes because Asian Americans are less likely to base their evaluations of Latinos on perceived foreignness.

The differential effects of raciolinguistic context on members of different racial groups, and particularly Asian Americans, provide an interesting direction for future research. However, despite these differences, this analysis largely confirms the hypothesis that raciolinguistic context has a relationship with outgroup attitudes, with HEP populations associated with more positive attitudes and LEP populations associated with more negative attitudes. In the remainder of this analysis, I test the relationships between raciolinguistic context, contact, stereotypes, and attitudes, to explain the intermediate steps linking context and attitudes.

Contact based on context

Outgroup context provides opportunities for contact with members of that group. Therefore, I predict that larger HEP populations of an outgroup in a respondent's zip code are associated with higher levels of contact with English-speaking members of that group, while larger LEP populations of an outgroup in a respondent's zip code are associated with higher levels of contact with non-English-speaking members of that group.

To assess contact with English speakers and non-English speakers, I analyze a question from the YouGov Daily Surveys measuring superficial contact. Respondents were asked "How often, if at all, do you have everyday relationships (such as exchanging a few words, buying something at a store, and so on) with...?" and then presented with a group, including "Asian Americans who speak English," "Asian Americans who don't speak English," "Hispanic or Latino Americans who speak English," "Hispanic or Latino Americans who don't speak English," "People who speak English as a second language," and "People who don't speak English." Response options were "Every day" (coded as 1), "Often" (0.75), "Sometimes" (0.5), "Rarely" (0.25), and "Never" (0). This question is adapted from one used in Reny and Barreto (2022). Figure 17 plots the distribution of superficial contact frequency among respondents. Across groups, levels of contact with non-English speakers are generally lower than contact with English speakers, but the majority of respondents engage in contact with both English-speaking and non-English-speaking members of each group at least rarely. Additionally, Asian and Latino Americans generally have higher levels of contact with non-English speakers, including outgroup non-English speakers. White respondents generally have the lowest level of contact

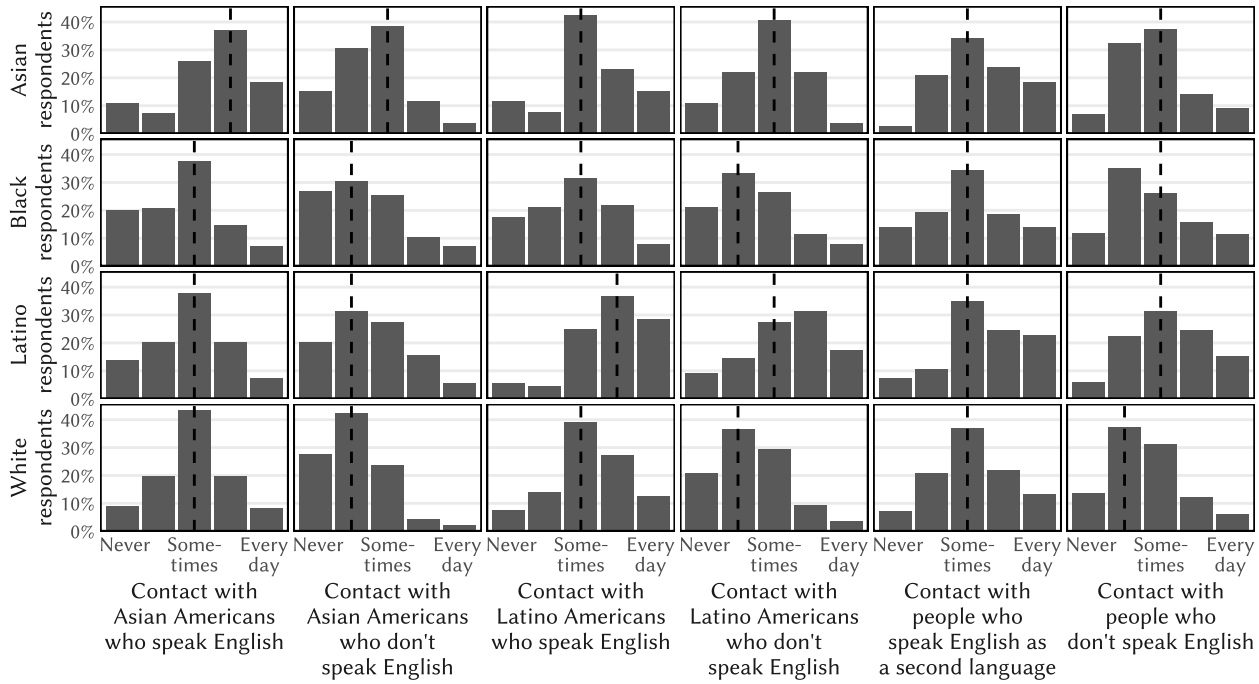

Figure 17: Distribution of superficial contact with Asian and Latino Americans who do and don't speak English, people who speak English as a second language, and people don't speak English among Asian, Black, Latino, and white American survey respondents. Dashed lines indicate the median response in each facet.

with non-English speakers, with Black respondents in the middle. In contrast, Black respondents tend to have the lowest level of contact with English-speaking outgroup members.

To assess the relationship between raciolinguistic context and English and non-English intergroup contact, I conducted linear regression analyses predicting respondents' levels of superficial contact with English-speaking and non-English-speaking Asian and Latino Americans, people who speak English as a second language, and people who don't speak English, based on the respective group's share of the population of the respondent's zip code. Each model was based on an outgroup sample: models predicting contact with

Asian Americans were conducted with a sample of non-Asian respondents who do not speak an Asian language, those predicting contact with Latino Americans were conducted with a sample of non-Latino respondents who do not speak Spanish, and those predicting contact with ESL and non-English speakers were conducted with a sample of non-immigrant English-monolingual respondents. Each model included controls for age, college education, gender, immigrant generation, race, and logged zip code population density. Models predicting contact with Asian and Latino Americans also included a control for multilingualism; models predicting contact with ESL speakers and non-English speakers do not because their samples include only monolinguals.

Results of this analysis are summarized in Table 15. These models provide significant evidence that a larger population share of HEP group members in an individual's zip code is associated with greater levels of contact with that group. On the other hand, evidence is more mixed for the effect of LEP populations. Model 6 shows that larger LEP populations are significantly associated with higher levels of self-reported contact with non-English speakers. On the other hand, models 2 and 4 do not find significant evidence that larger LEP Asian and Latino populations are significantly associated with increased contact with non-English speaking Asian and Latino Americans, respectively, although the point estimates are in the hypothesized direction. The lack of a significant regression coefficient should not be taken as proof that an association between LEP raciolinguistic context and contact does not exist. However, it does suggest that the link between context and contact may be stronger for English-speaking outgroups than non-English-speaking outgroups.

	Dependent variable:					
	Contact with					
	Asian English speakers	Asian non-English speakers	Latino English speakers	Latino non-English speakers	ESL speakers	Non-English speakers
	(1)	(2)	(3)	(4)	(5)	(6)
HEP population share in zip code	0.649**		0.504***		0.583***	
	(0.217)		(0.095)		(0.144)	
LEP population share in zip code		0.773		0.476		0.576**
		(0.374)		(0.246)		(0.190)
Age	0.000	−0.001***	0.000	−0.000	−0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Bachelor's degree	0.074***	0.007	0.072***	0.028	0.102***	0.049*
	(0.020)	(0.018)	(0.020)	(0.021)	(0.023)	(0.024)
Male	0.006	−0.016	−0.019	−0.021	0.004	−0.008
	(0.018)	(0.016)	(0.019)	(0.019)	(0.022)	(0.023)
Multilingual	0.023	0.009	0.005	0.018		
	(0.030)	(0.030)	(0.037)	(0.039)		
Log zip code population density	0.013*	0.011*	0.008	0.011	0.004	0.014*
	(0.005)	(0.004)	(0.005)	(0.005)	(0.007)	(0.006)
Intercept	0.198**	0.380***	0.366***	0.401***	0.481***	0.303*
	(0.072)	(0.076)	(0.091)	(0.099)	(0.095)	(0.131)
Immigrant generation fixed effects	✓	✓	✓	✓	✓	✓
Race fixed effects	✓	✓	✓	✓	✓	✓
Observations	829	829	713	713	564	564
R^2	0.070	0.068	0.101	0.044	0.121	0.093
Adjusted R^2	0.058	0.056	0.087	0.029	0.100	0.071
						Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 15: Results of regression models predicting contact with English-speaking and non-English-speaking Asian and Latino Americans, people who speak English as a second language, and people who don't speak English, based on each group's share of the population in the respondent's zip code of residence. Standard errors are cluster robust at the zip code level.

The analysis supports the hypothesis that larger HEP populations of an outgroup in a respondent's zip code are associated with higher levels of contact with English-speaking members of that group. On the other hand, it provides more mixed evidence for the hypothesis that larger LEP populations of an outgroup in a respondent's zip code are associated with higher levels of

contact with non-English-speaking members of that group. While larger LEP populations are significantly associated with higher levels of contact with non-English speakers, the analysis did not find evidence of a significant association between the size of the LEP Asian or Latino population in a zip code and contact with non-English-speaking Asian or Latino Americans. Nevertheless, the point estimates for these insignificant associations were similar to those of the significant associations in this analysis.

This is not a major concern because even if there were no association between LEP population share and contact with non-English speakers, this would not invalidate my theoretical model. I theorized that exposure to LEP populations is not associated with a reduction in negative stereotyping because language barriers prevent meaningful contact that dispels stereotypes. However, the overall model would be largely unchanged if the reason is instead that exposure to LEP populations is not associated with increased contact with non-English speakers in any form.

Negative stereotyping based on contact

Meaningful contact with members of an outgroup provides opportunities to dispel negative group stereotypes (Allport 1954). However, meaningful contact is only likely to occur when individuals share a language in common. Therefore, I expect that English speakers with higher levels of contact with English-speaking outgroup members will have lower levels of negative stereotyping towards that group.

On other hand, because language barriers impede deep contact, I do not expect English speakers with higher levels of contact with non-English-

speaking outgroup members to have lower levels of negative stereotyping towards that group. On the contrary, contact with non-English-speaking outgroup members may reinforce negative stereotypes about outgroup foreignness. If this is the case, English speakers with higher levels of contact with non-English-speaking outgroup members may have higher levels of negative stereotyping towards that group.

To assess the relationship between raciolinguistic contact and negative stereotypes, I conducted linear regression analyses predicting respondents' levels of racial resentment towards Asian Americans, Latino Americans, and immigrants. Resentment was measured using the Asian American resentment scale (D. G. Kim 2022), Latino American resentment scale (Ocampo and Garcia-Rios 2020) and immigrant resentment scale (adapted from D. G. Kim 2022; Ocampo and Garcia-Rios 2020). The questions that make up each scale are included in Appendix 3. Contact with English-speaking and non-English speaking Asian Americans was used to predict Asian resentment, contact with English-speaking and non-English speaking Latinos was used to predict Latino resentment, and contact with ESL speakers and non-English speakers was used to predict immigrant resentment. Each model used the same samples and controls as in the previous models.

Regression results in Table 16 show that contact with English-speaking Asian Americans is significantly negatively associated with resentment towards Asian Americans. While results in model 2 seem to suggest that contact with non-English-speaking Asian Americans is similarly negatively associated with Asian resentment, this association disappears when controlling for contact with English-speaking Asian Americans in model 3. This suggests that the

	Dependent variable:		
	Resentment towards Asian Americans		
	(1)	(2)	(3)
Contact with English-speaking Asian Americans	−0.144***		−0.149***
	(0.031)		(0.037)
Contact with non-English-speaking Asian Americans		−0.081*	0.008
		(0.037)	(0.043)
Age	−0.000	−0.000	−0.000
	(0.000)	(0.000)	(0.000)
Bachelor's degree	−0.056**	−0.066***	−0.055**
	(0.018)	(0.019)	(0.019)
Male	0.006	0.003	0.006
	(0.016)	(0.016)	(0.016)
Multilingual	−0.018	−0.020	−0.018
	(0.028)	(0.028)	(0.028)
Log zip code population density	0.002	0.001	0.002
	(0.004)	(0.004)	(0.004)
Intercept	0.653***	0.656***	0.651***
	(0.062)	(0.062)	(0.062)
Immigrant generation fixed effects	✓	✓	✓
Race fixed effects	✓	✓	✓
Observations	829	829	829
R^2	0.068	0.050	0.068
Adjusted R^2	0.055	0.037	0.054
	Note: *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$		

Table 16: Results of regression models predicting resentment towards Asian Americans, based on contact with English-speaking and non-English-speaking Asian Americans. Standard errors are cluster robust at the zip code level.

apparent association between contact with non-English speakers and reduced resentment may simply be an artifact of correlation between contact with English speakers and contact with non-English speakers.

Mediation analysis in Table 17 provides further support for this hypothesis. The Sobel test suggests that any association between contact with non-English speaking Asian Americans and resentment is mediated by contact with English speakers. (See Appendix 4 for methodological information about

	Dependent variable:		
	Contact with HEP Asian Americans	Resentment towards Asian Americans	
	(1)	(2)	(3)
Contact with English-speaking Asian Americans	0.606***	−0.081*	0.008
	(0.030)	(0.037)	(0.043)
Contact with non-English-speaking Asian Americans			−0.149***
			(0.037)
Age	0.001***	−0.000	−0.000
	(0.000)	(0.000)	(0.000)
Bachelor's degree	0.074***	−0.066***	−0.055**
	(0.017)	(0.019)	(0.019)
Male	0.018	0.003	0.006
	(0.015)	(0.016)	(0.016)
Multilingual	0.018	−0.020	−0.018
	(0.023)	(0.028)	(0.028)
Log zip code population density	0.011**	0.001	0.002
	(0.004)	(0.004)	(0.004)
Intercept	−0.034	0.656***	0.651***
	(0.051)	(0.062)	(0.062)
Immigrant generation fixed effects	✓	✓	✓
Race fixed effects	✓	✓	✓
Sobel test			−0.090***
			(0.023)
Observations	829	829	829
R^2	0.348	0.050	0.068
Adjusted R^2	0.339	0.037	0.054
	Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$		

Table 17: Results of a mediation analysis predicting the association between Asian resentment and contact with non-English-speaking Asian Americans mediated by contact with English-speaking Asian Americans. Standard errors are cluster robust at the zip code level.

the Sobel test.) A respondent whose only interactions with Asian Americans are with non-English speakers would not be expected to display any less anti-Asian resentment than a respondent who does not interact with any Asian Americans at all.

Regression results in Table 18 show that the association between contact with English and non-English speakers and resentment is similar for

	Dependent variable:		
	Resentment towards Latinos		
	(1)	(2)	(3)
Contact with English-speaking Latinos	−0.154***		−0.131***
	(0.026)		(0.033)
Contact with non-English-speaking Latinos		−0.118***	−0.041
		(0.028)	(0.036)
Age	−0.000	−0.000	−0.000
	(0.000)	(0.000)	(0.000)
Bachelor's degree	−0.064***	−0.072***	−0.065***
	(0.016)	(0.016)	(0.016)
Male	0.020	0.020	0.020
	(0.014)	(0.014)	(0.014)
Multilingual	0.028	0.029	0.029
	(0.025)	(0.026)	(0.025)
Log zip code population density	−0.005	−0.006	−0.005
	(0.003)	(0.003)	(0.003)
Intercept	0.509***	0.496***	0.516***
	(0.060)	(0.061)	(0.060)
Immigrant generation fixed effects	✓	✓	✓
Race fixed effects	✓	✓	✓
Observations	713	713	713
R^2	0.101	0.081	0.103
Adjusted R^2	0.086	0.067	0.087
	Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$		

Table 18: Results of regression models predicting resentment towards Latinos based on contact with English-speaking and non-English-speaking Latinos. Standard errors are cluster robust at the zip code level.

Latino outgroups. For non-Latino non-Spanish speakers, contact with English speaking Latinos is associated with lower levels of anti-Latino resentment. On the other hand, the association between contact with non-English speaking Latinos and resentment is rendered insignificant when controlling for contact with English-speaking Latinos.

Results of a mediation analysis in Table 19 show that the association between contact with non-English-speaking Latinos and reduced Latino

	Dependent variable:		
	Contact with English-speaking Latinos	Resentment towards Latinos	
	(1)	(2)	(3)
Contact with non-English-speaking Latinos	0.606***	−0.081*	0.008
	(0.030)	(0.037)	(0.043)
Contact with English-speaking Latinos			−0.149***
			(0.037)
Age	0.001***	−0.000	−0.000
	(0.000)	(0.000)	(0.000)
Bachelor's degree	0.074***	−0.066***	−0.055**
	(0.017)	(0.019)	(0.019)
Male	0.018	0.003	0.006
	(0.015)	(0.016)	(0.016)
Multilingual	0.018	−0.020	−0.018
	(0.023)	(0.028)	(0.028)
Log zip code population density	0.011**	0.001	0.002
	(0.004)	(0.004)	(0.004)
Intercept	−0.034	0.656***	0.651***
	(0.051)	(0.062)	(0.062)
Immigrant generation fixed effects	✓	✓	✓
Race fixed effects	✓	✓	✓
Sobel test			−0.090***
			(0.023)
Observations	829	829	829
R^2	0.348	0.050	0.068
Adjusted R^2	0.339	0.037	0.054
	Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$		

Table 19: Results of a mediation analysis predicting the association between resentment towards Latinos and contact with non-English-speaking Latinos mediated by contact with English-speaking Latinos. Standard errors are cluster robust at the zip code level.

resentment is mediated by contact with English-speaking Latinos. When controlling for the effect of contact with English-speaking Latinos, these models do not provide significant evidence that contact with non-English-speaking Latinos affects resentment.

Results in Table 20 show that, when considered separately, neither contact with ESL speakers nor contact with non-English speakers is significantly

	Dependent variable:		
	Resentment towards immigrants		
	(1)	(2)	(3)
Contact with ESL speakers	−0.037		−0.115**
	(0.026)		(0.039)
Contact with non-English speakers		0.053	0.123**
		(0.030)	(0.037)
Age	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)
Bachelor's degree	−0.108***	−0.114***	−0.105***
	(0.019)	(0.019)	(0.019)
Male	0.004	0.004	0.005
	(0.017)	(0.017)	(0.017)
Log zip code population density	−0.005	−0.007	−0.007
	(0.004)	(0.004)	(0.004)
Intercept	0.422***	0.389***	0.423***
	(0.051)	(0.050)	(0.053)
Immigrant generation fixed effects	✓	✓	✓
Race fixed effects	✓	✓	✓
Observations	564	564	564
R^2	0.126	0.128	0.141
Adjusted R^2	0.105	0.107	0.119
	Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$		

Table 20: Results of regression models predicting resentment towards immigrants based on contact with English as a second language speakers and non-English speakers. Standard errors are cluster robust at the zip code level.

associated with resentment towards immigrants. However, when taken together in model 3, contact with ESL speakers is significantly associated with lower levels of immigrant resentment while contact with non-English speakers is significantly associated with higher levels of resentment. This suggests that the positive association of exposure to ESL speakers and the negative association of exposure to non-English speakers may partially counteract each other in practice, given that the two forms of contact are highly correlated.

These analyses demonstrate that English speakers with higher levels of contact with English-speaking outgroup members have lower levels of negative stereotyping towards that group, while English speakers with higher levels of contact with non-English-speaking outgroup members do not. While there is an apparent negative association between contact with non-English-speaking Asian and Latino Americans and Asian and Latino resentment, mediation analysis reveals that this association is explained by the positive correlation between contact with non-English-speaking and English-speaking Asian and Latino Americans. When controlling for contact with English speakers, contact with non-English speakers has no significant association with negative stereotyping of these groups.

On the other hand, the analysis provides only partial support for the hypothesis that English speakers with higher levels of contact with non-English-speaking outgroup members have higher levels of negative stereotyping towards that group. Contact with non-English speakers was found to be positively correlated with negative stereotyping of immigrants. However, no significant association was found between contact with Asian and Latino non-English speakers and negative stereotypes of Asian and Latino Americans. Identifying why this association can be detected for stereotypes of immigrants but not of Asian or Latino Americans provides an avenue for future research. Given that the immigrant resentment scale is adapted from question included in the Asian American and Latino resentment scales, it is unlikely that the difference in results can be explained by a measurement issue. This may suggest that the outgroup threat response towards immigrants is stronger than that towards Asian and Latino Americans, meaning it has a greater impact on

stereotyping. It may also suggest that negative stereotypes of immigrants are more shaped by linguistic outgroup threat than those of Asian and Latino Americans. Finally, it may suggest that the immigrant resentment scale more accurately measures negative stereotyping than the Asian American or Latino resentment scales, potentially because reporting negative stereotypes of immigrants is less subject to social desirability bias than reporting negative racial stereotypes.

Racial attitudes based on contact

Negative stereotyping is associated with negative group attitudes, so it follows from the previous analysis that English speakers with higher levels of contact with English-speaking outgroup members should have more positive attitudes towards that group.

To assess the relationship between English and non-English intergroup contact and group attitudes, I conducted linear regression analyses predicting respondents' feeling thermometer ratings of Asian and Latino Americans. Group attitudes towards Asian and Latino Americans were measured with a feeling thermometer adapted from Reny and Barreto (2022). Contact with English-speaking and non-English speaking Asian Americans was used to predict attitudes towards Asian Americans and contact with English-speaking and non-English speaking Latinos was used to predict attitudes towards Latinos. Each model used the same samples and controls as in the previous models.

Regression results in Table 21 show that contact with English-speaking Asian Americans is significantly associated with higher feeling thermoemeter ratings of Asian Americans, just as it was associated with reduced anti-Asian

	Dependent variable:		
	Asian American feeling thermometer rating		
	(1)	(2)	(3)
Contact with English-speaking Asian Americans	0.118**		0.128**
	(0.037)		(0.042)
Contact with non-English-speaking Asian Americans		0.058	−0.018
		(0.042)	(0.048)
Age	0.001**	0.002***	0.001**
	(0.000)	(0.000)	(0.000)
Bachelor's degree	0.018	0.027	0.017
	(0.020)	(0.019)	(0.020)
Male	−0.020	−0.018	−0.021
	(0.018)	(0.018)	(0.018)
Multilingual	−0.029	−0.026	−0.029
	(0.030)	(0.030)	(0.030)
Log zip code population density	−0.005	−0.003	−0.004
	(0.004)	(0.004)	(0.004)
Intercept	0.380***	0.381***	0.385***
	(0.068)	(0.068)	(0.069)
Immigrant generation fixed effects	✓	✓	✓
Race fixed effects	✓	✓	✓
Observations	829	829	829
R^2	0.071	0.060	0.071
Adjusted R^2	0.058	0.047	0.057
	Note: *p < 0.05; **p < 0.01; ***p < 0.001		

Table 21: Results of regression models predicting feeling thermometer ratings of Asian Americans, based on contact with English-speaking and non-English-speaking Asian Americans. Standard errors are cluster robust at the zip code level.

resentment in Table 16. On the other hand, there is no significant evidence of an association between contact with non-English-speaking Asian Americans and attitudes towards Asian Americans.

Regression results in Table 22 similarly show that contact with English-speaking Latinos is significantly positively associated with attitudes towards Latinos. While model 2 suggests that contact with non-English-speaking Latinos may be similarly positively associated, model 3 reveals that this

	Dependent variable:		
	Latino feeling thermometer rating		
	(1)	(2)	(3)
Contact with English-speaking Latino Americans	0.217***		0.235***
	(0.035)		(0.042)
Contact with non-English-speaking Latino Americans		0.105**	−0.033
		(0.036)	(0.042)
Age	0.001**	0.002***	0.001**
	(0.000)	(0.000)	(0.000)
Bachelor's degree	0.000	0.012	0.000
	(0.020)	(0.020)	(0.020)
Male	−0.038*	−0.039*	−0.038*
	(0.018)	(0.019)	(0.018)
Multilingual	−0.010	−0.010	−0.009
	(0.037)	(0.037)	(0.038)
Log zip code population density	−0.002	−0.000	−0.002
	(0.005)	(0.005)	(0.005)
Intercept	0.359***	0.402***	0.365***
	(0.081)	(0.082)	(0.083)
Immigrant generation fixed effects	✓	✓	✓
Race fixed effects	✓	✓	✓
Observations	713	713	713
R^2	0.089	0.049	0.089
Adjusted R^2	0.074	0.034	0.074
	Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$		

Table 22: Results of regression models predicting feeling thermometer ratings of Latinos, based on contact with English-speaking and non-English-speaking Latino Americans. Standard errors are cluster robust at the zip code level.

association disappears when controlling for contact with English-speaking Latinos, just like the association between contract with non-English-speaking Latinos and anti-Latino resentment in Table 18.

These analyses support the hypothesis that English speakers with higher levels of contact with English-speaking outgroup members have more positive attitudes towards that group. Contact with English-speaking Asian and Latino Americans is significantly positively associated with feeling

thermometer ratings of Asian Americans and Latinos. On the other hand, there is no significant association between contact with non-English speaking Asian and Latino Americans and feeling thermometer ratings of these groups when controlling for the effect of contact with English speakers.

Attitudes towards immigrants based on contact

Just as with attitudes towards racial groups, I expect that contact will play a role in attitudes toward immigrants. Because contact with English as a second language speakers is associated with a reduction in negative stereotypes of immigrants, I expect that English speakers with higher levels of contact with ESL speakers should have more positive attitudes towards immigrants. Conversely, given that contact with non-English speakers was associated with increased negative stereotyping of immigrants, English speakers with higher levels of contact with non-English speakers should have more negative attitudes towards immigrants.

To assess the relationship between English and non-English intergroup contact and attitudes towards immigrants, I conducted linear regression analyses predicting respondents' attitudes based on their level of contact with ESL speakers and non-English speakers. Group attitudes toward immigrants were measured with a question asking, "In general, do you think immigration makes the U.S. better or worse, or does it not make much difference?" Each model used the same sample and controls as in the previous models.

Regression results are summarized in Table 23. Model 1 provides evidence for a significant association between contact with ESL speakers and pro-immigrant attitudes. Model 3 shows that when controlling for the effect

	Dependent variable:		
	Attitude towards immigrants		
	(1)	(2)	(3)
Contact with ESL speakers	0.250***		0.384***
	(0.063)		(0.081)
Contact with non-English speakers		0.021	−0.211*
		(0.062)	(0.081)
Age	−0.003***	−0.003***	−0.003**
	(0.001)	(0.001)	(0.001)
Bachelor's degree	0.166***	0.191***	0.163***
	(0.042)	(0.041)	(0.042)
Male	0.034	0.036	0.031
	(0.036)	(0.036)	(0.036)
Log zip code population density	0.014	0.019*	0.017
	(0.009)	(0.009)	(0.009)
Intercept	0.722***	0.833***	0.720***
	(0.110)	(0.105)	(0.110)
Immigrant generation fixed effects	✓	✓	✓
Race fixed effects	✓	✓	✓
Observations	564	564	564
R^2	0.148	0.127	0.158
Adjusted R^2	0.128	0.106	0.137
	Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$		

Table 23: Results of regression models predicting attitudes towards immigrants based on contact with English as a second language speakers and non-English speakers. Standard errors are cluster robust at the zip code level.

of contact with non-English speakers, these associations are even stronger. On the other hand, model 2 does not provide evidence for a significant association between contact with non-English speakers and attitudes. However, as was the case for resentment in Table 20, models 3 shows that there is a significant negative association between contact with non-English speakers and anti-immigrant attitudes and policy preferences, when controlling for contact with ESL speakers.

These analyses support the hypotheses that contact with ESL speakers is associated with more positive group attitudes and policy preferences towards immigrants, while contact with non-English speakers is associated with more negative group attitudes. Analysis in Appendix 5 demonstrates that contact with ESL speakers and non-English speakers have similar effects on immigration policy preferences.

DISCUSSION

This analysis provides evidence that raciolinguistic ideologies shape American's attitudes not only towards foreign languages, but towards the groups that are associated with foreign languages. Because dominant stereotypes cast Asian Americans, Latinos, and immigrants as foreign, exposure to English-speaking members of these groups can challenge stereotypes and improve outgroup attitudes. On the other hand, exposure to members of the group with low English proficiency is unlikely to result in meaningful intergroup contact and can even reinforce negative stereotypes.

Results of the preceding analysis provide confirmatory evidence for the theoretical model illustrated in Figure 14. Raciolinguistic context shapes outgroup attitudes by modifying the frequency of intergroup contact and the content of outgroup stereotypes. In zip codes with larger high English proficiency Asian American or Latino populations, outgroup English speakers engage in more contact with the group, endorse fewer negative stereotypes of the group, and espouse more positive attitudes towards the group. On the other hand, in zip codes with larger low English proficiency Asian American or Latino

populations, outgroup English speakers espouse more negative attitudes towards the group.

Analysis of attitudes towards immigrants yielded even stronger results. In addition to the associations found for Asian American and Latino populations, non-immigrant English speakers in zip codes with larger ESL speaking populations show more support for pro-immigrant policies, while those in zip codes with larger non-English speaking populations engage in more contact with non-English speakers, endorse more negative stereotypes of immigrants, espouse more negative attitudes towards immigrants, and show more support for anti-immigrant policies.

This analysis provides broad support for Rosa and Flores's (2017) argument that raciolinguistic ideologies are practiced by members of both dominant groups and marginalized groups. However, this chapter focused entirely on outgroup attitudes. If marginalized group members practices raciolinguistic ideologies similarly to dominant group members, this suggests that English-speaking Asian and Latino Americans may hold similar negative stereotypes towards non-English-speaking ingroup members, and that these stereotypes may shape ingroup attitudes in groups with internal language barriers. In the following chapter, I examine the extent to which non-English-speaking ingroup context shapes ingroup attitudes, contact, and linked fate for English-speaking Asian and Latino Americans.

Chapter 5

INTRAGROUP LANGUAGE BARRIERS

The previous chapter demonstrated that the raciolinguistic makeup of individuals' local contexts shape attitudes towards racial outgroups. In contexts with large outgroup populations with high English proficiency, English speakers are more likely to engage in intergroup contact, which dispels negative outgroup stereotypes and improves outgroup attitudes. In contrast, in contexts where large outgroup populations have limited English proficiency, English speakers engage in less intergroup contact, reinforce negative stereotypes, and develop more negative outgroup attitudes.

However, language barriers do not only play a role in outgroup attitudes. Many Asian and Latino Americans born in the United States speak only English, while many foreign-born Asian and Latino Americans do not speak English. As a result, intragroup language barriers exist within these communities. I argue that intragroup language barriers may affect English-monolingual Asian and Latino Americans' ingroup attitudes similarly to the way that intergroup language barriers affect English-speaking Americans' outgroup attitudes. When language barriers impede positive contact with ingroup members, English-monolingual Asian and Latino Americans may adopt raciolinguistic stereotypes similar to those expressed by outgroup members.

I expect that living in areas with larger ingroup populations with limited English proficiency will lead English-monolingual Asian and Latino Americans to develop more negative ingroup attitudes for two main reasons.

First, language barriers reduce individuals' ability to interact with members of their ingroup. This means English speakers will have fewer opportunities for deep contact to dispel dominant stereotypes about their ingroup. Second, experiencing language barriers in ingroup interactions is likely to lead non-heritage language speakers to feel more peripheral in their group identities. Peripheral group members engage in derogation of lower status ingroups in favor of higher status ingroups (Noel, Wann, and Branscombe 1995). This means English-speaking Asian or Latino Americans may display negative attitudes towards their racial ingroup and show more attachment to higher status identity groups, like "American" or "English speaker".

Conversely, in areas where individuals' English-speaking coracial population is larger, English monolinguals will have more opportunities to interact with ingroup members, dispelling dominant stereotypes. Similarly, English speakers will feel more central in their racial group identities in areas where English-speaking group members are common, reducing the chance that individuals will engage in ingroup derogation.

LITERATURE REVIEW

Leach et al. (2008) argue that ingroup identification can be divided into five components: self-stereotyping as similar to other group members, perceived homogeneity of the ingroup, satisfaction with group membership, sense of solidarity with the ingroup, and centrality of the group to one's identity. Because the Spanish language is historically tied to Latino identity (Mora 2014), the language that Latino populations use should be most closely associated with two of these components: perceived homogeneity and self-

stereotyping. Members will perceive the group as less homogeneous when the population is divided into Spanish speakers and English speakers. On the other hand, English monolinguals will be less likely to view themselves as similar to the stereotypical group member when Spanish speakers dominate the population.

The case is more complicated for Asian Americans because the Asian American population is more linguistically diverse than the United States' Latino population. Although the Latino American population includes speakers of other languages, including many indigenous languages, Spanish and English are clearly dominant languages (Mora 2014; Ruggles et al. 2024). Asian Americans' perceived homogeneity may be less tied to language than Latinos' because no heritage language is dominant among Asian Americans. On the other hand, Asian Americans are predominantly stereotyped as foreign and these stereotypes often focus on Asian Americans' perceived lack of English language proficiency (Huynh, Devos, and Smalarz 2011; C. J. Kim 1999; Zou and Cheryan 2017). This means that like Latinos, English-monolingual Asian Americans may feel a reduced sense of ingroup self-stereotyping when their ingroup contexts reinforce linguistic stereotypes about Asian Americans.

In addition to perceived homogeneity and self-stereotyping, language may also play a role in the other three components of identity proposed by Leach et al. (2008): sense of solidarity with the ingroup, centrality of the group to one's identity, and satisfaction with group membership. First, English monolinguals may feel less solidarity if groups dominated by heritage language speakers organize around struggles that English-speaking members do not face, such as language accessibility. Second, English monolinguals may feel

less identity centrality if their language skills lead them to form social networks with fewer ingroup members and more outgroup members. Finally, English monolinguals may feel less identity satisfaction if group members ostracize them for their inability to speak their heritage language.

All these factors suggest that English monolinguals may be at the periphery of Asian American and Latino identity but that this peripheral status will be more pronounced in areas where more members of the ingroup do not speak English. Noel, Wann, and Branscombe (1995) find that people on the border between low-status and high-status ingroups are more likely to publicly derogate their low-status ingroup. Similarly, Tajfel and Turner (1979) argue that when one is a member of a stigmatized group, disassociating from the group is a potential identity management strategy. English monolinguals may view themselves as on the border between two identity groups – the lower status label of Asian or Latino and the higher status label of English-speaking American. They may therefore disassociate from the group to maintain their self-esteem and express more negative attitudes towards non-English speakers to raise their standing in the higher-status group. This disassociation and ingroup derogation may be more prevalent in areas where raciolinguistic context reinforces negative stereotypes about the ingroup.

While simple measures of group favorability provide one way to assess ingroup attitudes, political scientists have developed other measures that target politically relevant aspects of ingroup attitudes. Linked fate is one such measure of ingroup identification. Dawson (1994) originally proposed linked fate as an explanation for why some Black American voters support policies that seemingly run counter to their narrow self-interest. Dawson (1994) argued

that many Black Americans feel a sense of linked fate, that what happens in their life is dependent on what happens to other Black people. In response to this belief, Black voters may make political decisions using a Black utility heuristic, an evaluation of whether an action will benefit Black people overall, rather than just benefiting the individual.

Although initially developed to explain Black political behavior, linked fate has been applied to Asian and Latino Americans in subsequent research. Large numbers of Latino and Asian Americans do report a sense of linked fate, although both groups exhibit linked fate at lower rates than Black Americans (Gay, Hochschild, and White 2016; Sanchez and Vargas 2016). Sanchez and Vargas (2016) explore the applicability of linked fate as a measure to Asian, Black, Latino, and white populations, and compare the measure to other variables used to measure ingroup identity. In addition to linked fate, they examine three variables related to group consciousness: sense of group commonality, importance of collective action, and perceived discrimination. While all four measures are highly correlated for Black respondents, a factor analysis that linked fate and perceived group commonality are most closely related for Asian American and Latino respondents. This suggests that linked fate is an appropriate measure of ingroup identification for Asian and Latino Americans, as both it and its most associated covariate, perceived group commonality, bear similarity to psychological aspects of ingroup identification explored by Leach et al. (2008). On the other hand, I would argue that the two less associated aspects of group consciousness, importance of collective action and perceived discrimination, may be thought of as moderators in the relationship between ingroup identification and political action, rather than measures of ingroup

identification itself. Therefore, it is not a concern for this analysis that Asian and Latino Americans exhibit less correlation between linked fate and group commonality, on one hand, and importance of collective action and perceived discrimination, on the other, than Black Americans.

Both Asian American and Latino linked fate has been shown to be associated with other variables. Sanchez and Masuoka (2010) argue that the extent to which Latinos exhibit linked fate declines with distance from the immigrant experience. Relevant to this study, they find that Latino linked fate is positively associated with speaking Spanish and having Latino friends. Sanchez, Masuoka, and Abrams (2019) additionally find that perceived discrimination is a major predictor of Latino linked fate, although Sanchez and Masuoka (2010) did not. Sanchez, Masuoka, and Abrams (2019) argue that changes in context between the earlier study in 2006 and the later study in 2016 may have led to substantive differences in the determinants of Latino linked fate. Smith, Lopez Bunyasi, and Smith (2019) support the notion that Latino linked fate is shaped by temporal context, finding that Latino linked fate has varied over time and that cohorts socialized in different time periods demonstrate differences in linked fate.

Junn and Masuoka (2008) find that Asian American linked fate can be increased by manipulating salient political context. Similar to Sanchez, Masuoka, and Abrams (2019), Huang (2021), Kiang, Wilkinson, and Juang (2022), and Nicholson and Mei (2023) find that some forms of perceived discrimination are positively associated with Asian Americans' sense of linked fate.

When examining the ingroup identification of Asian and Latino Americans, one must also consider the roles of panethnicity. Haynes and Skulley

(2012) find that Asian Americans have a sense of linked fate with ingroups defined both panethnically and by national origin. Masuoka (2006) also finds evidence that many Asian and Latino Americans exhibit panethnic group consciousness, although increased panethnic identification is predicted by different factors between the two groups. Relevant to this study, contact with panethnic ingroup members, through panethnic political action, was found to significantly increase panethnic identification among both groups. Being foreign-born, on the other hand is negatively associated with panethnic identification (although this relationship was only significant for Latinos and not Asian Americans). Given that this chapter is primarily focused on the attitudes of Asian and Latino Americans born in the United States, this suggests that analyzing panethnic ingroup identification may be more appropriate for this target population than for Asian or Latino Americans as a whole.

Panethnic identification, like linked fate, can be shaped by contextual factors. Okamoto (2003) finds that when Asian Americans are segregated along national origin lines, they are less likely to engage in panethnic collective action, while when Asian Americans of different national origin backgrounds are concentrated together, they are more likely to act panethnically. On the other hand, Wu (2024) finds that Asian Americans living in areas with higher concentrations of visible indicators of their own national origin group, such as businesses catering to their national origin group or signs in their heritage language, report higher levels of panethnic identification. One possible explanation is that in areas where one's own Asian national origin group dominates, questions that ask about Asian Americans may conjure a coethnic image, while in areas where the Asian American population is diverse or a

national origin outgroup dominates, the same questions may conjure an image of a non-coethnic Asian Americans.

This suggests that questions about ingroup identification may be subject to operationalization effects: questions intended to measure panethnic identification may actually capture national origin ingroup identification. As such, I argue that while we can analyze differences in respondents' answers to the same question measuring ingroup identification, it is difficult to assess whether these differences are driven by differences in panethnic identification or differences in national origin ingroup identification.

THEORY

This literature demonstrates that linked fate and panethnic attitudes are relevant measures of ingroup identification among Asian and Latino Americans. It also shows that both variables are affected by contextual factors. In this chapter, I propose that raciolinguistic context is another such factor that shapes the ingroup attitudes of Asian American and Latino English speakers.

As shown in the previous chapter, both dominant and marginalized group members adopt raciolinguistic ideologies (Rosa and Flores 2017). Individuals apply dominant linguistic stereotypes to racial outgroups in contexts where non-English language use is high. This leads them to adopt more negative attitudes towards the outgroup. Similarly, I propose that in contexts where heritage language use is common among a racial ingroup, English monolingual group members may adopt negative ingroup attitudes and exhibit reduced ingroup identification.

In the previous chapter, I found that one explanatory factor for the effects of raciolinguistic context is that English speakers engage in more intergroup contact in contexts where many outgroup members have high English proficiency and less intergroup contact in contexts where many outgroup members have limited English proficiency. I argue that English-monolingual Asian and Latino Americans will display a similar association, engaging in more coracial contact in contexts where more racial ingroup members speak English with high proficiency and less in contexts where more racial ingroup members have limited English proficiency.

METHOD

To analyze the link between linguistic context and ingroup attitudes, I examine data from two sources: the Nationscape survey (Holliday et al. 2021; Tausanovitch and Vavreck 2021) and the 2020 Collaborative Multiracial Post-Election Survey (CMPS) (Frasure et al. 2021). (See Appendix 1 for more information about datasets.) These two sources complement one another by each having their own strengths. The Nationscape dataset includes a large sample, providing a great deal of statistical power, but is a general political survey with few questions related to group attitudes. The CMPS, on the other hand, includes a smaller sample, but provides more questions specific to racial and ethnic politics.

To demonstrate that raciolinguistic context affects ingroup attitudes, I examine the relationship between raciolinguistic context and ingroup favorability for Nationscape respondents. Because the survey does not include a direct measure of language ability, I focus my analysis on the 38,880 Latino

respondents who report not speaking Spanish at home and 12,836 Asian American respondents who report not speaking a language other than English or Spanish at home.

Then, to more precisely estimate the causal pathway through which context shapes these attitudes, I analyze the relationship between raciolinguistic context, ingroup contact, and sense of ingroup linked fate for CMPS respondents. I focus my analysis on respondents who stated that their primary racial identity was Asian American or Latino, yielding a sample of 3,826 Asian Americans and 3,529 Latinos. While this survey also does not directly ask about language ability, I treat respondents as not speaking their ethnic group's heritage language if they report "almost never" speaking it with family or friends. Using this measure, the sample includes 974 Asian Americans and 433 Latinos who do not speak a heritage language.

I operationalize raciolinguistic context using census data retrieved from IPUMS NHGIS (Manson et al. 2023) about each respondent's zip code of residence. To predict attitudes towards Asian Americans, I use the population share of the zip code made up of Asian Americans with limited English proficiency (LEP) and high English proficiency (HEP). To predict attitudes towards Latinos, I use the population share made up of LEP and HEP Latinos.

ANALYSIS

Ingroup favorability based on raciolinguistic context

To measure the ingroup attitudes of English-dominant Asian and Latino Americans, I analyze responses to a block of questions on the Nationscape survey asking about group favorability. The block of questions was introduced

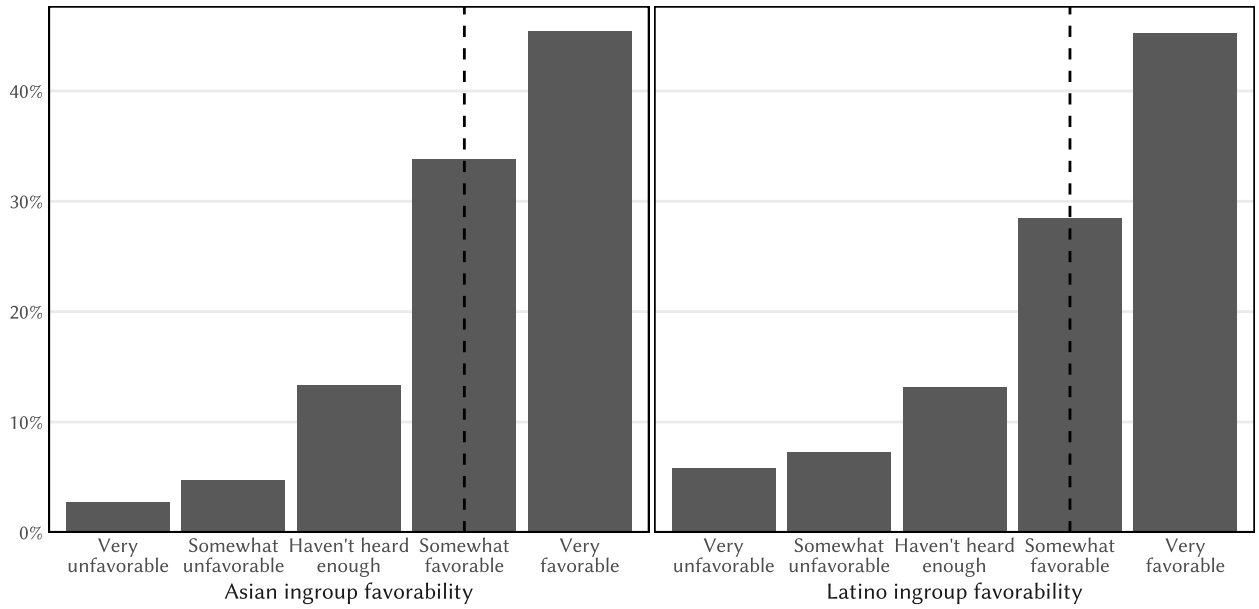

Figure 18: Distribution of ingroup favorability for Asian American and Latino survey respondents who do not speak a heritage language. Dashed lines indicate the median response in each facet.

with "Here are the names of some groups that are in the news from time to time. How favorable is your impression of each group or haven't you heard enough to say?" and then listed several groups, including "Asians" and "Latinos". Response options were "very favorable" (coded as 1), "somewhat favorable" (0.75), "somewhat unfavorable" (0.25), "very unfavorable" (0), and "haven't heard enough" (0.5).

Figure 18 plots the distribution of ingroup favorability among English-dominant Asian American and Latino respondents. Among both groups, attitudes are positive on average. However, there is variation in ingroup attitudes. While the modal response is "very favorable", selected by slightly less than half of respondents in each group, the median response in each group is "somewhat favorable", and an appreciable minority of respondents express neutral or unfavorable attitudes towards their ingroup.

To test the basic hypothesis that ingroup HEP context is positively associated with ingroup attitudes and ingroup LEP context is negatively associated with ingroup attitudes, I run linear regression models predicting ingroup favorability based on coracial linguistic context. I predict Asian American respondents' favorability towards Asians using the HEP and LEP Asian American population shares of their zip codes of residence and Latino respondents' favorability towards Latinos using their HEP and LEP Latino zip code population shares. Each model also includes controls for age, gender, education, national origin, date of the interview, and the logged population density of the respondent's zip code. Models predicting Latino attitudes also include a control for racial self-identification.

Table 24 summarizes the results of these analyses. These results show that there is a significant relationship between raciolinguistic context and ingroup favorability for both English-monolingual Asian and Latino Americans. For English-monolingual Asian Americans, the share of one's zip code population made up of HEP Asian Americans has a negligible effect on ingroup favorability, while the size of the LEP Asian American population is significantly negatively associated with favorability. For English-monolingual Latino Americans, ingroup favorability has a significant positive relationship with the share of one's zip code population made up of HEP Latinos and a smaller significant negative relationship with the LEP Latino population share.

This analysis provides support for the hypothesis that living in areas with larger LEP coracial populations is associated with more negative ingroup attitudes for English monolinguals. The population share of a respondent's zip code made up of LEP Asian Americans is strongly negatively associated with

	Dependent variable:					
	Ingroup favorability					
	Asian subset			Latino subset		
	(1)	(2)	(3)	(4)	(5)	(6)
HEP coracial population share in zip code	−0.062 (0.049)		−0.008 (0.055)	0.157*** (0.043)		0.200*** (0.047)
LEP coracial population share in zip code		−0.163* (0.078)	−0.155 (0.088)		−0.004 (0.016)	−0.036* (0.018)
Age	−0.001*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)
Bachelor's degree	0.052*** (0.012)	0.051*** (0.012)	0.051*** (0.012)	0.024** (0.008)	0.021** (0.008)	0.024** (0.008)
Log zip code population density	0.004 (0.003)	0.005 (0.003)	0.005 (0.003)	0.011*** (0.001)	0.011*** (0.001)	0.012*** (0.001)
Intercept	0.562*** (0.049)	0.553*** (0.050)	0.554*** (0.050)	0.422*** (0.040)	0.430*** (0.040)	0.417*** (0.040)
Gender fixed effects	✓	✓	✓	✓	✓	✓
National origin fixed effects	✓	✓	✓	✓	✓	✓
Race fixed effects				✓	✓	✓
Survey week fixed effects	✓	✓	✓	✓	✓	✓
Observations	12,739	12,739	12,739	38,184	38,184	38,184
R^2	0.015	0.016	0.016	0.018	0.018	0.018
Adjusted R^2	0.008	0.008	0.008	0.015	0.015	0.015
						Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 24: Results of regression models predicting ingroup favorability for English-monolingual Asian and Latino survey respondents based on the coracial share of the respondent's zip code with high and low English proficiency. Standard errors are cluster robust at the zip code level.

English-monolingual Asian American's ingroup favorability, while the share of the LEP Latino population is also significantly negatively associated with English-monolingual Latinos' ingroup favorability, although to a lesser extent.

On the other hand, the analysis provides more mixed support for the hypothesis that English monolinguals in areas with larger HEP coracial populations hold more positive ingroup attitudes. English-monolingual Latinos' ingroup attitudes are strongly positively associated with the population share of HEP Latinos in their zip code, but the association between English-

monolingual Asian Americans' ingroup favorability and HEP Asian American population shares is negligible.

The associations demonstrated in this analysis parallel those found for outgroup favorability in the previous chapter. Attitudes towards Asian Americans are more strongly shaped by a negative association with the LEP Asian American population, while attitudes towards Latino Americans are more strongly shaped by a positive association with the HEP Latino population. However, the mechanism for these associations be different from those shaping outgroup attitudes. In the following section, I examine two variables that may form a link between linguistic context and ingroup favorability: contact and linked fate.

Social network coraciality based on raciolinguistic context.

A shared language is a prerequisite for the type of meaningful contact needed to form social relationships. Conversely, language barriers impede contact, particularly deep contact formed in social relationships. This leads me to hypothesize that Asian American and Latino English speakers will have more contact with ingroup members in areas with HEP ingroup populations, and less ingroup contact in areas with larger LEP ingroup populations.

Neither Nationscape nor the CMPS have questions directly asking about respondents' levels of contact with members of different groups. Instead, I analyze a question included on the CMPS that asks about the ethnic makeup of respondents' social networks. Respondents were asked "What share of your friends, co-workers, and family members are [Asian/Latino]?" Response options were "None of them" (coded as 0), "Some of them" (0.25), "About half of

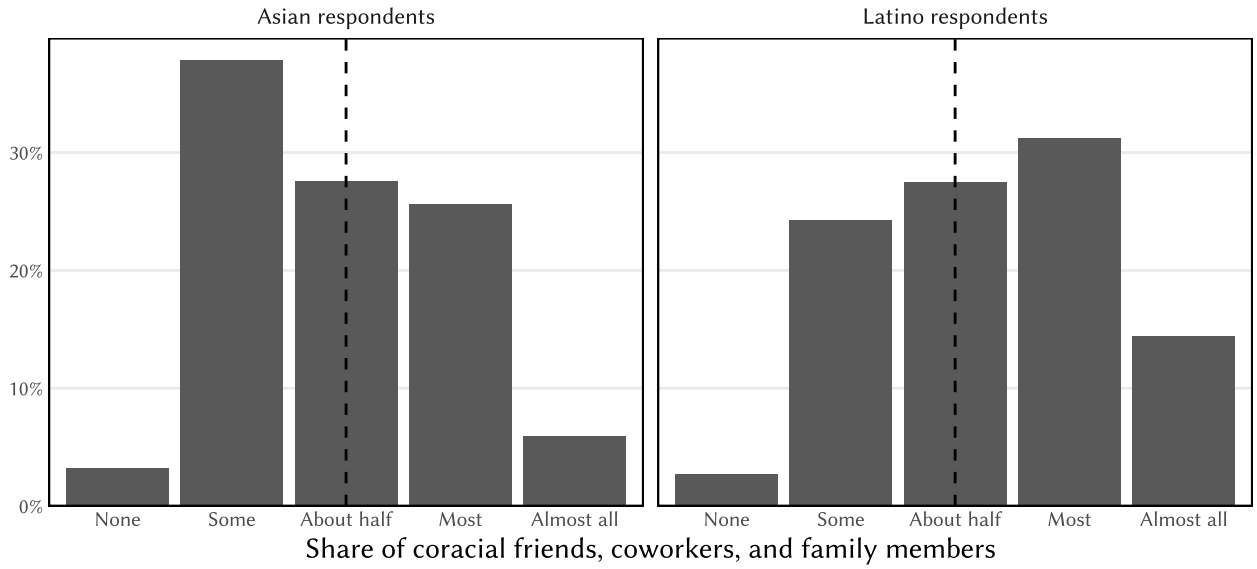

Figure 19: Distribution of social network coraciality for Asian American and Latino survey respondents. Dashed lines indicate the median response in each facet.

them" (0.5), "Most of them" (0.75), and "Almost all of them" (1). Figure 19 plots the distribution of social network coraciality among Asian American and Latino respondents. On average, Latinos exhibit higher average social network coraciality than Asian Americans. Among both groups, the median response is that "about half" of a respondent's friends, coworkers, and family members are coracial, but the modal response is different between the two groups. For Asian Americans, the modal response is that "some" of one's social network is coracial, while for Latinos the modal response is "most". However, almost all respondents have at least some degree of ingroup contact through their social networks: in both groups, only about 3% of respondent report "none" of their social network being coracial.

This operationalization of ingroup contact has pros and cons. On one hand, social relationships involve the type of deep contact that Allport (1954)

argues has the greatest influence on group attitudes. However, this question lumps together multiple categories of social relationship, some of which may have more impact than others. While a relationship between friends is very likely to rise to the level of deep contact, a relationship between co-workers may range anywhere from close friendship to superficial acquaintance. Relationships with co-workers may even be hostile. Similarly, family relationships can run a wide gamut. Many people would point to their relationship with a parent or spouse as having more influence over their thoughts and feelings than any other. But on the other hand, respondents may count distant relatives with whom they have hardly any relationship at all when answering this question. And unfortunately, relationships with family members, like those with co-workers, are not always positive.

Despite these concerns, I feel confident analyzing social network coraciality as a proxy for ingroup contact. The three categories mentioned in the question, friends, co-workers, and family members, are likely to account for the bulk of the average person's socialization, and as such are likely to provide a good measure of contact.

To assess the relationship between raciolinguistic context and the racial makeup of social networks, I conducted linear regression analyses predicting respondents' levels of social network coraciality based on the HEP and LEP population shares of the respondent's ethnic group in the respondent's zip code. Each independent variable was interacted with the respondent's ability to speak their heritage language, yielding a total of four main coefficients of

analysis. Each model also included controls for ability to speak a heritage language, age, college education, gender, immigrant generation, race, and logged zip code population density.

Results of this analysis are summarized in Table 25. These models provide significant evidence that a larger population share of HEP ingroup members in an individual's zip code is associated with increased social network coraciality. This association holds for Asian Americans who can and cannot speak an Asian language and Latinos who can and cannot speak Spanish. However, as expected, the magnitude of the association is significantly larger for respondents who cannot speak a heritage language. This shows that English speakers in areas with larger HEP ingroup populations have higher levels of ingroup contact.

On the other hand, this analysis provides mixed evidence for the hypothesis that LEP ingroup populations are associated with reduced social network coraciality. When analyzed on their own, models 2 and 5 give the impression that larger LEP coracial population shares are associated with *increased* social network coraciality, the opposite of my hypothesized association. However, models 3 and 6, which include both HEP and LEP ingroup context as covariates, reveal that this association is spurious, likely driven by the positive correlation between HEP and LEP coracial population shares discussed in Chapter 4. When controlling for the effect of HEP ingroup populations, non-Spanish-speaking Latinos are significantly less likely to have a primarily coracial social network in zip codes with larger LEP Latino populations. On the

	Dependent variable:					
	Social network coraciality					
	Asian subset			Latino subset		
	(1)	(2)	(3)	(4)	(5)	(6)
HEP coracial population share in zip code × speaks heritage language	0.369*** (0.041)		0.274*** (0.063)	0.312*** (0.027)		0.278*** (0.038)
HEP coracial population share in zip code × doesn't speak heritage language	0.824*** (0.063)		0.800*** (0.081)	0.480*** (0.060)		0.653*** (0.094)
LEP coracial population share in zip code × speaks heritage language		0.534*** (0.116)	0.256 (0.130)		0.366*** (0.047)	0.073 (0.065)
LEP coracial population share in zip code × doesn't speak heritage language		1.165*** (0.149)	0.090 (0.151)		0.543** (0.168)	−0.561* (0.269)
Speaks English	−0.144 (0.112)	−0.153 (0.117)	−0.148 (0.111)	−0.184*** (0.024)	−0.179*** (0.023)	−0.182*** (0.024)
Age	−0.000** (0.000)	−0.000* (0.000)	−0.000** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)
Bachelor's degree	−0.015 (0.009)	−0.011 (0.009)	−0.014 (0.009)	−0.022* (0.009)	−0.027** (0.009)	−0.022* (0.009)
Log zip code population density	0.008** (0.002)	0.006 (0.003)	0.006* (0.003)	0.000 (0.002)	−0.001 (0.003)	0.000 (0.003)
Intercept	0.415* (0.119)	0.480* (0.124)	0.433* (0.118)	0.572*** (0.039)	0.659*** (0.039)	0.575*** (0.039)
Gender fixed effects	✓	✓	✓	✓	✓	✓
Immigrant generation fixed effects	✓	✓	✓	✓	✓	✓
National origin fixed effects	✓	✓	✓	✓	✓	✓
Observations	3,796	3,796	3,796	3,478	3,478	3,478
R^2	0.116	0.089	0.119	0.151	0.127	0.154
Adjusted R^2	0.110	0.083	0.112	0.143	0.119	0.145
						Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 25: Results of regression models predicting social network coraciality for Asian and Latino survey respondents based on the coracial share of the respondent's zip code with high and low English proficiency interacted with the respondent's ability to speak a heritage language. Standard errors are cluster robust at the zip code level.

other hand, there is no significant association between social network ethnic composition and LEP coracial population shares for Asian Americans who cannot speak an Asian language.

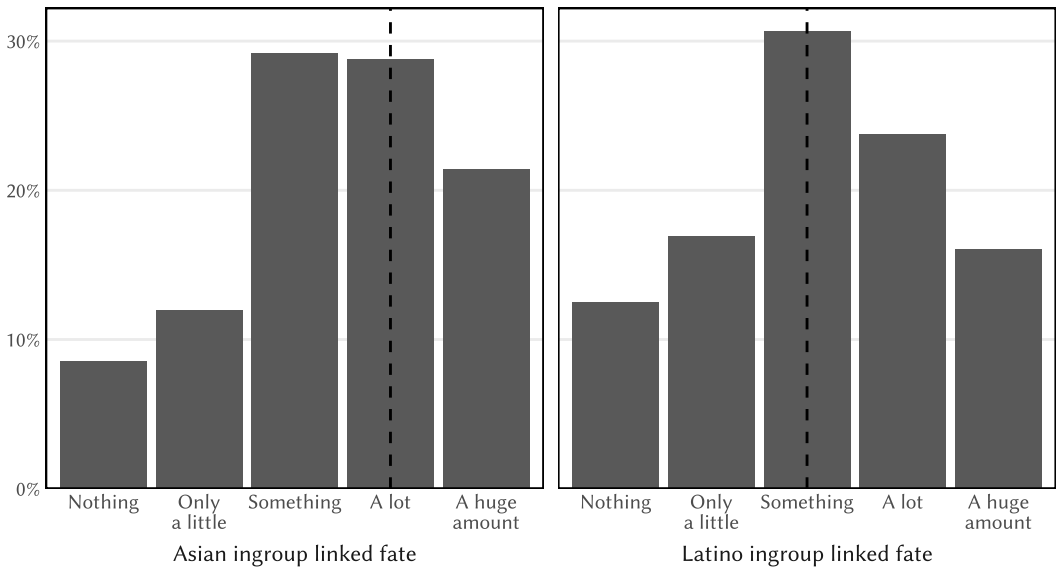

Figure 20: Distribution of ingroup linked fate for Asian American and Latino survey respondents. Dashed lines indicate the median response in each facet.

Linked fate

To measure respondents' level of linked fate with their racial ingroup, I examine a question that asked respondents "How much do you think what happens to the following groups here in the U.S. will have something to do with what happens in YOUR life?" and then presented them with a number of groups, including "Asian people", "Black people", "Hispanic people", "Native or indigenous people", and "White people". Response options were "Nothing to do with what happens in my life" (coded as 0), "Only a little to do with what happens in my life" (0.25), "Something to do with what happens in my life" (0.5), "A lot to do with what happens in my life" (0.75), and "A huge amount to do with what happens in my life" (1). Figure 20 plots the distribution of Asian American and Latino respondents' levels of linked fate with their racial ingroups. There is significant variation in this measure: in both groups, the

modal response is the middle-of-the-road "something", but distributions approximate a normal profile, and sizeable shares of respondents give the highest response, "a huge amount", or the lowest, "nothing". Asian Americans, with a median response of "a lot", exhibit higher average levels of linked fate than Latinos, whose median response is "something".

One interesting aspect of the CMPS questionnaire is that it asks each respondent about their sense of linked fate with all groups. This stands in contrast to many other surveys including a measure of linked fate, which only ask respondents about their sense of linked fate with their ingroup. This is understandable given that linked fate was originally developed as a way to measure an aspect of Black Americans' ingroup identification (Dawson 1994). However, examining respondents' sense of linked fate with different outgroups may help us understand more about their ingroup attitudes. Figure 21 illustrates the distribution of Asian American and Latino respondents' sense of linked fate with their racial ingroup alongside each racial outgroup. (Respondents who identify with multiple groups, such as Latino and white, are excluded from analysis of outgroup linked fate with each group.) The plot reveals that both Asian Americans and Latinos feel a greater sense of linked fate with their own ingroup on average, but also that most respondents do feel a level of linked fate with each racial outgroup. The median Asian American respondent feels "a lot" of linked fate with Asian people, but also "some" or "a little" linked fate with all other

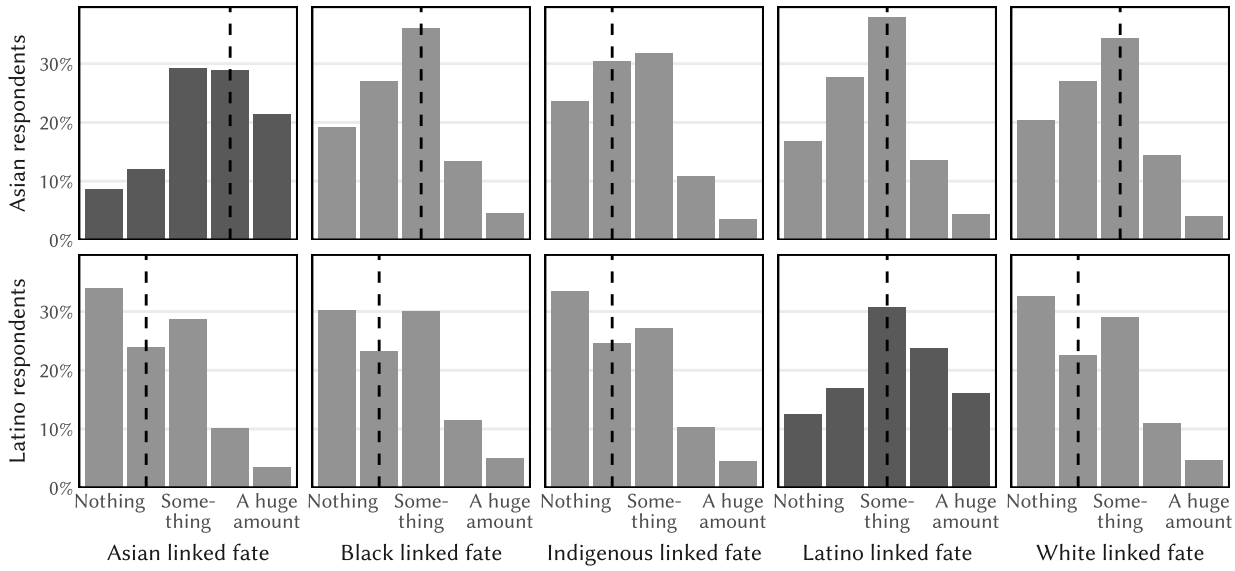

Figure 21: Distribution of linked fate with Asian, Black, Indigenous, Latino, and white people for Asian American and Latino survey respondents. Measures of outgroup linked fate are shaded in a lighter color and do not include respondents who identify with that group. Measures of ingroup linked fate are shaded in a darker color. Dashed lines indicate the median response in each facet.

groups, while the median Latino respondent feels "some" linked fate with Latino people and "a little" linked fate with all other groups.

This analysis of outgroup linked fate suggests that observed ingroup linked fate may be the result of two separate underlying factors. First, and most obviously, linked fate includes an aspect of ingroup favoritism. In its original formulation, Dawson (1994) used linked fate to explain why many Black voters take positions that seem to go against their economic self-interest, showing that a greater sense of racial linked fate leads one to favor policies

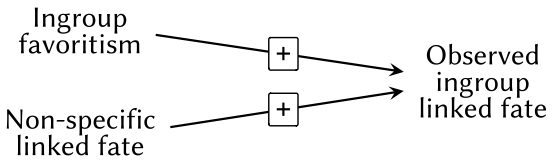

Figure 22: Diagram of the relationship between ingroup favoritism, non-specific linked fate, and observed ingroup linked fate.

and candidates that support other members of one's racial ingroup. But second, I argue that linked fate includes an aspect of non-specific pro-sociality. Gay, Hochschild, and White (2016) find that when survey respondents are presented with questions about linked fate towards multiple groups, there is a high degree of correlation between each individual's responses. They also find that when respondents are asked about a generic linked fate with "other people in this country," non-specific linked fate is a significant predictor of racial ingroup linked fate. This suggests that some people feel that what happens to other people has little to do with their lives, regardless of group identity, while others feel a high degree of linked fate with many different groups. To feel that what happens to other members of your group will have something to do with what happens in your life, you must feel that what happens to other *people* will have something to do with what happens in your life. Figure 22 illustrates how these two aspects, ingroup favoritism and non-specific linked fate, come together to form observed levels of ingroup linked fate. This means that a misanthrope with a high degree of ingroup favoritism and a devoted humanitarian with no ingroup favoritism may display similar levels of ingroup linked fate.

Analyzing reported outgroup linked fate offers a way to distinguish between these two sources of observed ingroup linked fate. Measures of

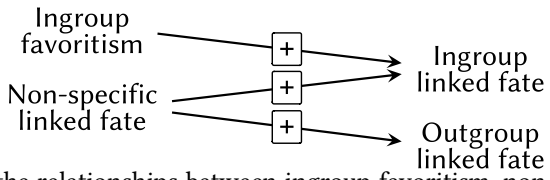

Figure 23: Diagram of the relationships between ingroup favoritism, non-specific linked fate, ingroup linked fate, and outgroup linked fate.

outgroup linked fate should only be positively influenced by non-specific linked fate and not by ingroup favoritism, as illustrated in Figure 23. While the humanitarian should display high levels of both ingroup linked fate and outgroup linked fate, the misanthrope should display low levels of outgroup linked fate.

To test my hypothesis that observed levels of ingroup linked fate are in part explained by a sense of non-specific with people in general, I conduct linear regression analyses predicting Asian American, Black, Latino, and white respondents' levels of ingroup linked fate based on levels of outgroup linked fate with each racial outgroup. The sample for each model is made up of respondents who stated that the ingroup being measured was their primary racial identity and who did not identify with the outgroup being measured. Each model also includes controls for age, education, gender, immigrant generation, logged zip code population density, and, in the case of Asian American and Latino respondents, national origin. If observed levels of ingroup linked fate are in part explained by non-specific linked fate, we should see a positive correlation between measures of ingroup linked fate and outgroup linked fate. If, on the other hand, observed ingroup linked fate can be explained entirely by ingroup favoritism, we should see no significant relationship between measures of ingroup and outgroup linked fate.

	Dependent variable:							
	Asian ingroup linked fate				Latino ingroup linked fate			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Outgroup linked fate with Asian people					0.455*** (0.017)			
Outgroup linked fate with Black people	0.539*** (0.016)					0.552*** (0.016)		
Outgroup linked fate with Hispanic people		0.524*** (0.018)						
Outgroup linked fate with Native or indigenous people			0.429*** (0.017)				0.466*** (0.016)	
Outgroup linked fate with White people				0.429*** (0.019)				0.387*** (0.020)
Age	−0.001*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)	−0.002*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)
Bachelor's degree	0.021* (0.010)	0.014 (0.010)	0.022* (0.010)	0.016 (0.011)	0.027** (0.010)	0.019 (0.009)	0.033** (0.010)	0.044*** (0.012)
Log zip code population density	0.004 (0.003)	0.005 (0.003)	0.005 (0.003)	0.005 (0.003)	0.006 (0.003)	0.003 (0.003)	0.006* (0.003)	0.007 (0.003)
Intercept	0.398*** (0.037)	0.397*** (0.038)	0.445*** (0.040)	0.449*** (0.041)	0.342*** (0.029)	0.347*** (0.027)	0.330*** (0.029)	0.349*** (0.036)
Gender fixed effects	✓	✓	✓	✓	✓	✓	✓	✓
Immigrant generation fixed effects	✓	✓	✓	✓	✓	✓	✓	✓
National origin fixed effects	✓	✓	✓	✓	✓	✓	✓	✓
Observations	3,779	3,761	3,796	3,636	3,452	3,410	3,445	2,674
R^2	0.272	0.248	0.186	0.191	0.203	0.298	0.221	0.166
Adjusted R^2	0.267	0.243	0.181	0.186	0.196	0.291	0.214	0.156
								Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 26: Results of regression models predicting ingroup linked fate for Asian and Latino survey respondents based on levels of outgroup linked fate with Asian, Black, Latino, Indigenous, and white people. Standard errors are cluster robust at the zip code level.

Table 26 and Table 27 summarize results of these models. For all four groups, every measure of ingroup linked fate has a positive, significant association with each measure of outgroup linked fate. This provides strong evidence that measures of ingroup linked fate are influenced by two underlying psychological mechanisms. The significant positive associations provide

	Dependent variable:							
	Black ingroup linked fate				White ingroup linked fate			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Outgroup linked fate with Asian people	0.356*** (0.017)				0.536*** (0.018)			
Outgroup linked fate with Black people						0.480*** (0.019)		
Outgroup linked fate with Hispanic people		0.494*** (0.017)					0.487*** (0.020)	
Outgroup linked fate with Native or indigenous people			0.376*** (0.016)					0.463*** (0.017)
Outgroup linked fate with White people				0.262*** (0.016)				
Age	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	−0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)
Bachelor's degree	0.087*** (0.010)	0.065*** (0.009)	0.089*** (0.010)	0.088*** (0.010)	0.006 (0.009)	0.018 (0.009)	0.008 (0.010)	0.014 (0.009)
Log zip code population density	0.013*** (0.003)	0.010*** (0.003)	0.011*** (0.003)	0.014*** (0.003)	−0.003 (0.002)	−0.003 (0.002)	−0.001 (0.003)	−0.000 (0.002)
Intercept	0.191*** (0.031)	0.135*** (0.030)	0.196*** (0.031)	0.213*** (0.032)	0.341*** (0.026)	0.374*** (0.027)	0.345*** (0.028)	0.347*** (0.027)
Gender fixed effects	✓	✓	✓	✓	✓	✓	✓	✓
Immigrant generation fixed effects	✓	✓	✓	✓	✓	✓	✓	✓
National origin fixed effects								
Observations	4,010	3,946	4,010	3,895	3,428	3,442	3,071	3,471
R^2	0.170	0.257	0.187	0.137	0.229	0.196	0.195	0.181
Adjusted R^2	0.168	0.255	0.185	0.135	0.226	0.194	0.192	0.178
								Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 27: Results of regression models predicting ingroup linked fate for Black and white survey respondents based on levels of outgroup linked fate with Asian, Black, Latino, Indigenous, and white people. Standard errors are cluster robust at the zip code level.

evidence that ingroup linked fate can be explained in part by non-specific linked fate. Meanwhile, the fact that there is still variance in ingroup linked fate unexplained by measures of outgroup linked fate shows that ingroup linked fate is not wholly explained by non-specific linked fate and is still associated with ingroup favoritism.

Based on these results, I operationalize ingroup linked fate in two ways in my subsequent analyses. The first operationalization, absolute ingroup linked fate, is simply the coded value of the respondent's reported level of linked fate with the racial group with which they most closely identify. The second operationalization, relative ingroup linked fate, is the difference between the coded value of the response chosen for one's racial ingroup and the highest value of the responses given for each racial outgroup. If a respondent identifies with more than one group, all identified groups are excluded from this calculation. For example, if a respondent primarily identifies as Latino but also identifies as white, white linked fate will not be included in the calculation for their relative ingroup linked fate. The relative operationalization controls for differences in non-specific linked fate in order to capture the aspect of linked fate influenced by ingroup favoritism.

Figure 24 plots the distribution of absolute and relative ingroup linked fate and maximum outgroup linked fate among respondents. This reveals that while the majority of Asian Americans and Latinos feel some degree of absolute linked fate with their racial ingroup, the modal Asian or Latino American feels no relative ingroup linked fate. Slightly less than half of Asian and Latino Americans have a relative ingroup linked fate score of 0. Asian Americans are slightly more likely than Latinos to have a positive relative ingroup linked fate score. Both groups also have a sizeable minority with negative relative ingroup linked fate scores: roughly one-in-five Asian and Latino Americans express a higher degree of linked fate with a racial outgroup than with their racial ingroup.

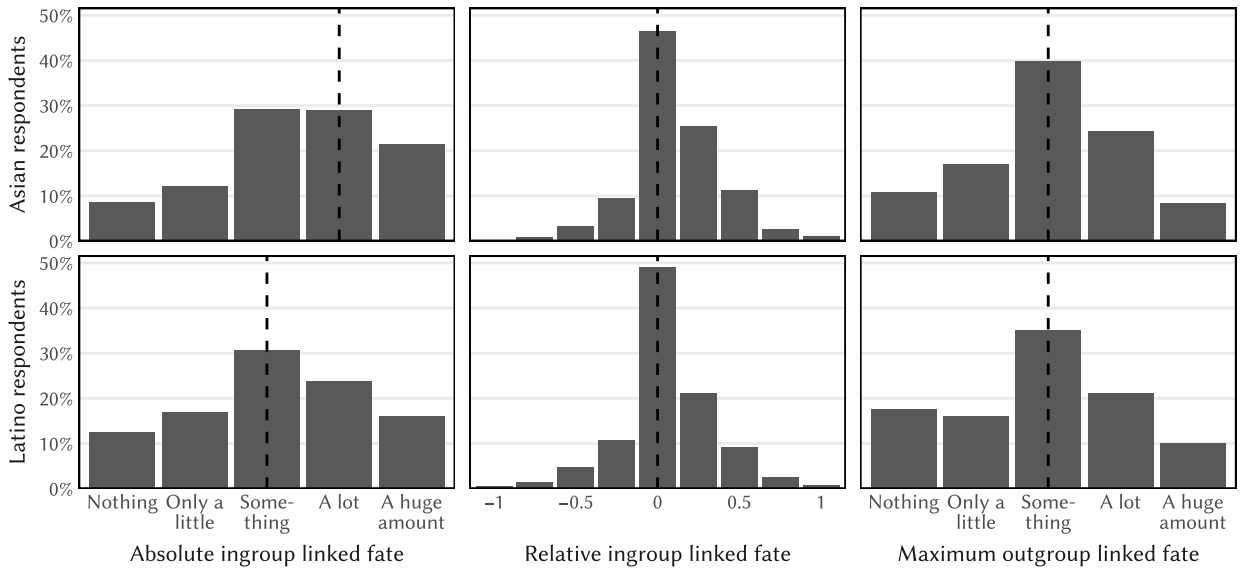

Figure 24: Distribution of absolute and relative ingroup linked fate and maximum outgroup linked fate for Asian American and Latino survey respondents. Dashed lines indicate the median response in each facet.

Linked fate based on raciolinguistic context

To measure the relationship between raciolinguistic context and ingroup linked fate, I conduct linear regression analyses predicting respondents' belief that what happens to members of their racial ingroup will affect what happens in their lives. For each group, one model predicts absolute linked fate, each respondent's self-reported level of linked fate with their ingroup ranging from "nothing" (0) to "a huge amount" (1), while another predicts relative ingroup linked fate, the difference between each respondent's level of linked fate with their ingroup and their highest level of linked fate with a racial outgroup. Each model predicts linked fate based on the HEP and LEP population shares of the respondent's ethnic group in the respondent's zip code. Each independent variable is interacted with the respondent's ability to

speak their heritage language, yielding a total of four main coefficients of analysis. Each model includes controls for ability to speak a heritage language, age, college education, gender, immigrant generation, race, and logged zip code population density.

Results of this analysis are summarized in Table 28 and Table 29. In all cases, raciolinguistic context shows stronger associations with relative linked fate than with absolute linked fate. This makes sense, because while I expect raciolinguistic context to influence ingroup favoritism, I do not expect it to influence non-specific linked fate. Because absolute ingroup linked fate does not control for individual differences in non-specific linked fate, its relationship with raciolinguistic context is weaker.

For both Asian and Latino Americans, the presence of a larger zip code HEP coracial population is significantly associated with higher levels of relative ingroup linked fate (although for Latinos, only when controlling for the effects of LEP coracial populations). In both groups, the relationship between HEP population share and relative ingroup linked fate is positive for both heritage language speakers and English monolinguals. However, the magnitude of the association is noticeably larger for Latinos who do not speak Spanish than those that do. The point estimate of the association is also larger for Asian Americans who do not speak a heritage language than those who do, but this difference is modest. This suggests that exposure to larger HEP coracial populations has positive effect on the ingroup identification of all Asian and Latino Americans, but that this effect is more pronounced for English monolinguals.

	Dependent variable:					
	Asian ingroup linked fate					
	Absolute			Relative		
	(1)	(2)	(3)	(4)	(5)	(6)
HEP Asian population share in zip code × speaks Asian language	0.100*		0.130*	0.157***		0.179**
	(0.044)		(0.057)	(0.045)		(0.055)
HEP Asian population share in zip code × doesn't speak Asian language	0.104		0.006	0.221***		0.210**
	(0.070)		(0.083)	(0.058)		(0.075)
LEP Asian population share in zip code × speaks Asian language		0.057	−0.074		0.122	−0.059
		(0.080)	(0.102)		(0.080)	(0.090)
LEP Asian population share in zip code × doesn't speak Asian language		0.292*	0.284		0.309*	0.028
		(0.139)	(0.166)		(0.126)	(0.162)
Speaks Asian language	0.001	0.013	0.004	0.003	0.006	0.004
	(0.017)	(0.015)	(0.017)	(0.015)	(0.014)	(0.015)
Speaks English	−0.243	−0.243	−0.242	−0.064	−0.065	−0.063
	(0.133)	(0.136)	(0.133)	(0.177)	(0.178)	(0.176)
Age	−0.002***	−0.001***	−0.002***	−0.001***	−0.001***	−0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Bachelor's degree	0.035**	0.036**	0.035**	0.008	0.009	0.007
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Log zip code population density	0.004	0.004	0.004	0.002	0.002	0.002
	(0.003)	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)
Intercept	0.858**	0.854**	0.856**	0.151	0.158	0.147
	(0.141)	(0.144)	(0.141)	(0.181)	(0.183)	(0.181)
Gender fixed effects	✓	✓	✓	✓	✓	✓
Immigrant generation fixed effects	✓	✓	✓	✓	✓	✓
National origin fixed effects	✓	✓	✓	✓	✓	✓
Observations	3,796	3,796	3,796	3,796	3,796	3,796
R^2	0.044	0.044	0.045	0.043	0.039	0.043
Adjusted R^2	0.037	0.037	0.037	0.036	0.032	0.036
						Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 28: Results of regression models predicting ingroup linked fate for Asian American survey respondents based on the share of the population of the respondent's zip code that is Asian American with high and low English proficiency interacted with the respondent's ability to speak an Asian language. Standard errors are cluster robust at the zip code level.

	Dependent variable:					
	Latino ingroup linked fate					
	Absolute			Relative		
	(1)	(2)	(3)	(4)	(5)	(6)
HEP Latino population share in zip code × speaks Spanish	−0.056 (0.031)		−0.014 (0.045)	0.043 (0.033)		0.098* (0.045)
HEP Latino population share in zip code × doesn't speak Spanish	−0.075 (0.076)		−0.016 (0.103)	0.125 (0.068)		0.231* (0.092)
LEP Latino population share in zip code × speaks Spanish		−0.107* (0.050)	−0.091 (0.073)		−0.015 (0.058)	−0.118 (0.080)
LEP Latino population share in zip code × doesn't speak Spanish		−0.220 (0.193)	−0.192 (0.265)		0.045 (0.160)	−0.347 (0.216)
Speaks Spanish	0.062* (0.025)	0.058** (0.021)	0.059* (0.025)	0.044 (0.023)	0.031 (0.018)	0.040 (0.023)
Speaks English	0.125*** (0.034)	0.122*** (0.034)	0.123*** (0.034)	0.035 (0.031)	0.033 (0.031)	0.032 (0.031)
Age	−0.001*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)	−0.000 (0.000)	−0.000 (0.000)	−0.000 (0.000)
Bachelor's degree	0.060*** (0.011)	0.060*** (0.011)	0.060*** (0.011)	−0.008 (0.011)	−0.011 (0.011)	−0.009 (0.011)
Log zip code population density	0.009** (0.003)	0.011** (0.003)	0.011** (0.003)	0.000 (0.003)	0.001 (0.003)	0.001 (0.003)
Intercept	0.327*** (0.051)	0.320*** (0.050)	0.323*** (0.052)	−0.066 (0.049)	−0.042 (0.048)	−0.071 (0.049)
Gender fixed effects	✓	✓	✓	✓	✓	✓
Immigrant generation fixed effects	✓	✓	✓	✓	✓	✓
National origin fixed effects	✓	✓	✓	✓	✓	✓
Observations	3,478	3,478	3,478	3,478	3,478	3,478
R^2	0.047	0.048	0.048	0.025	0.023	0.026
Adjusted R^2	0.038	0.039	0.038	0.015	0.014	0.016
	Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$					

Table 29: Results of regression models predicting ingroup linked fate for Latino survey respondents based on the share of the population of the respondent's zip code that is Latino with high and low English proficiency interacted with the respondent's ability to speak Spanish. Standard errors are cluster robust at the zip code level.

On the other hand, the size of the LEP coracial population in a respondent's zip code is not significantly associated with linked fate for any group when controlling for the effects of HEP population share. While there is a large negative association between the size of the LEP Latino population and ingroup linked fate for Latinos who do not speak Spanish, these associations fall short of the $p < 0.05$ threshold for significance. The associations for all other groups are of negligible significance.

Tajfel and Turner (1979) argue that group members may disassociate from low-status groups. Both Asian Americans and Latinos are negatively stereotyped as foreign, and limited English proficiency is one aspect of this stereotype (Huynh, Devos, and Smalarz 2011; Zou and Cheryan 2017). These results suggest that living in areas where large shares of one's ingroup population have a high degree of English fluency can counter these negative stereotypes and leave individuals with a greater attachment to the ingroup.

Linked fate based on context and social networks

In my final analysis with this dataset, I test the hypothesis that raciolinguistic context affects ingroup linked fate through a pathway of coracial contact. This parallels the argument put forward in the previous chapter, that raciolinguistic context operates through a pathway of increasing the likelihood of contact, which dispels negative stereotypes, which improves group attitudes. Additionally, Aron et al. (2004) and Page-Gould et al. (2010) find that deep contact with members of a social group increases association between the group and the self, which may provide an alternative pathway through which increased contact may create a greater sense of linked fate. To test this

causal pathway, I conduct a mediation analysis of the relationship between ingroup linked fate and raciolinguistic context with social network coraciality acting as a mediator. Based on the previous analysis, I use the relative operationalization of ingroup linked fate.

If social network coraciality mediates the relationship between raciolinguistic context and relative ingroup linked fate, we should expect that (1) measures of raciolinguistic context that are significantly associated with relative ingroup linked fate also predict social network coraciality, (2) social network coraciality is significantly associated with relative ingroup linked fate, and (3) the magnitude of associations between raciolinguistic context and relative ingroup linked fate are reduced when controlling for social network coraciality.

Results of this analysis are summarized in Table 30. All mediation criteria are met: raciolinguistic context predicts social network coraciality, social network coraciality predicts relative ingroup linked fate, and all significant associations between raciolinguistic context and relative ingroup linked fate are reduced in magnitude when controlling for social network coraciality. The significant Sobel test coefficients in both the Asian and Latino subsets provides evidence that social network coraciality is a significant mediator of the relationship between raciolinguistic context and relative ingroup linked fate. This suggests that the effect of raciolinguistic context on ingroup linked fate operates in part through increasing social contact with ingroup members, meaning that the mechanism for raciolinguistic context's effect on ingroup attitudes is strikingly similar to the mechanism for its effect on outgroup attitudes analyzed in the previous chapter.

	Dependent variable:					
	Asian subset			Latino subset		
	Social network coraciality	Relative ingroup linked fate		Social network coraciality	Relative ingroup linked fate	
	(1)	(2)	(3)	(4)	(5)	(6)
HEP coracial zip code share × speaks heritage language	0.274*** (0.063)	0.179** (0.055)	0.127* (0.054)	0.278*** (0.038)	0.098* (0.045)	0.061 (0.044)
HEP coracial zip code share × doesn't speak heritage language	0.800*** (0.081)	0.210** (0.075)	0.055 (0.072)	0.653*** (0.094)	0.231* (0.092)	0.145 (0.092)
LEP coracial zip code share × speaks heritage language	0.256 (0.130)	−0.059 (0.090)	−0.109 (0.091)	0.073 (0.065)	−0.118 (0.080)	−0.128 (0.078)
LEP coracial zip code share × doesn't speak heritage language	0.090 (0.151)	0.028 (0.162)	0.010 (0.158)	−0.561* (0.269)	−0.347 (0.216)	−0.272 (0.218)
Social network coraciality			0.193*** (0.019)			0.132*** (0.021)
Speaks heritage language	0.134*** (0.012)	0.004 (0.015)	−0.021 (0.015)	0.154*** (0.019)	0.040 (0.023)	0.019 (0.023)
Speaks English	−0.148 (0.111)	−0.063 (0.176)	−0.035 (0.188)	−0.182*** (0.024)	0.032 (0.031)	0.056 (0.031)
Age	−0.000** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)	−0.001*** (0.000)	−0.000 (0.000)	0.000 (0.000)
Bachelor's degree	−0.014 (0.009)	0.007 (0.011)	0.010 (0.011)	−0.022* (0.009)	−0.009 (0.011)	−0.006 (0.011)
Log zip code population density	0.006* (0.003)	0.002 (0.003)	0.001 (0.003)	0.000 (0.003)	0.001 (0.003)	0.001 (0.003)
Intercept	0.433* (0.118)	0.147 (0.181)	0.063 (0.192)	0.575*** (0.039)	−0.071 (0.049)	−0.148** (0.050)
Gender fixed effects	✓	✓	✓	✓	✓	✓
Immigrant generation fixed effects	✓	✓	✓	✓	✓	✓
National origin fixed effects	✓	✓	✓	✓	✓	✓
Sobel test			0.108* (0.047)			0.105* (0.044)
Observations	3,796	3,796	3,796	3,478	3,478	3,478
R^2	0.119	0.043	0.069	0.154	0.026	0.039
Adjusted R^2	0.112	0.036	0.062	0.145	0.016	0.029
						Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 30: Results of mediation analyses predicting relative ingroup linked fate for Asian and Latino survey respondents based on raciolinguistic context mediated by social network coraciality. Standard errors are cluster robust at the zip code level.

Panethnic and national origin linked fate

Throughout the preceding analyses, I found that the relationship between LEP Asian populations and Asian American's social network coraciality and ingroup linked fate was weaker than comparable analyses for Latinos. This difference may be driven in part by the fact that Asian Americans have numerous major heritage languages. This stands in contrast to Latinos, who are closely associated with the single dominant heritage language of Spanish. While the analysis of outgroup attitudes in the previous chapter demonstrated that the linguistic diversity of Asian Americans does not prevent raciolinguistic context from shaping other group's attitudes towards Asian Americans, Asian Americans' ingroup attitudes may have a more nuanced relationship with language. For example, Jang et al. (2022) find that speaking English fluently increases the probability of identifying with a panethnic label, such as Asian or Asian American, rather than with a national origin label. Therefore, Asian American English speakers may be more likely to imagine other English speakers when asked about their attitudes toward Asian Americans, but more likely to imagine non-English speakers when asked about a specific national origin group. This stands in contrast to the dominant stereotypes held by non-Asian Americans, who may be more likely to imagine Asian Americans as non-English speakers regardless of whether they are referred to with a panethnic or national origin label.

To test the possibility that raciolinguistic context has different effects on Asian Americans' panethnic linked fate and national origin linked fate, I conduct an analysis using data from the National Asian American Survey (NAAS), fielded between August 12 and October 29, 2008 (Ramakrishnan et

al. 2012). For this analysis, I restrict the sample to respondents who were born in the United States, chose to take the survey in English, and do not report speaking a heritage language "very well". Unlike the CMPS, which asks only about linked fate with "Asian people", the NAAS includes questions asking about linked fate with both Asians in general and national origin coethnics. Comparing responses to both questions should offer some insight into how raciolinguistic context affects both panethnic and national origin ingroup identification.

I operationalize Asian panethnic linked fate using a question that asked respondents "Do you think what happens generally to other Asians in this country affects what happens in your life?" and national origin linked fate with a question that asked, "Do you think what happens generally to other [ethnic group] Americans affects what happens in your life?" Each question gave response options of "Yes" (coded as 1) and "No" (0).

This survey did not release data on respondents' zip codes of residence, so I quantify ingroup linguistic context using census data about respondents' counties of residence. This data is derived from the American Community Survey five-year aggregation from 2004–2008, retrieved from IPUMS NHGIS (Manson et al. 2023). I operationalize panethnic ingroup raciolinguistic context using the share of each county's total population made up of Asian Americans with limited English proficiency (LEP) and high English proficiency (HEP). Because the Census Bureau does not release county-level data on the English-language abilities of specific national origin groups, I constructed a proxy variable for national origin ingroup linguistic context based on the population of a national origin group and the number of speakers of the group's heritage

languages with limited English proficiency. For example, the share of LEP Indian Americans in a county is calculated by summing the number of LEP Hindi, Gujarati, and "other Indic language" speakers, and the share of HEP Indian Americans is calculated by subtracting the estimated number of LEP Indian Americans from the total number of Indian Americans. Because of their shared heritage languages, this necessitated grouping Chinese and Taiwanese Americans for this analysis.

Table 31 shows that the association between the size of the proximate English- and non-English-speaking coracial population and belief in linked fate differs depending on whether Asian Americans are asked about other Asian Americans as a whole or specifically about other members of their national origin group. Belief in Asian linked fate is negatively associated with the size of the proximate English-speaking Asian American population and positively associated with the size of the proximate non-English-speaking population. On the other hand, when respondents are asked to think specifically about linked fate with other members of their national origin group, a negative association with the size of the proximate non-English-speaking population emerges.

This analysis provides support for the hypotheses that exposure to larger LEP coracial populations leads Asian Americans who do not speak a heritage language to express more linked fate with their panethnic group and less linked fate with their national origin group. This may help to explain why the negative relationships associated with LEP populations materialized more

	Dependent variable:	
	Linked fate	
	Asian	National origin
	(1)	(2)
HEP Asian population share in county	−2.015*	
	(0.788)	
LEP Asian population share in county	4.895*	
	(2.242)	
HEP national origin population share in county		2.065
		(2.895)
LEP national origin population share in county		−28.53*
		(14.03)
Age	0.001	0.003
	(0.003)	(0.004)
Bachelor's degree	−0.146	−0.261*
	(0.115)	(0.130)
Male	−0.037	0.027
	(0.108)	(0.123)
Intercept	0.377	0.093
	(0.442)	(0.454)
Household income fixed effects	✓	✓
National origin fixed effects	✓	✓
Observations	77	77
R^2	0.599	0.513
Adjusted R^2	0.474	0.362
Note: $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$		

Table 31: Results of regression models predicting ingroup linked fate with Asian Americans and national origin group members for Asian Americans survey respondents based on raciolinguistic county context.

consistently in the preceding analyses' Latino samples than Asian American samples and suggests that future research on Asian American's ingroup attitudes may benefit from analyzing feelings towards both panethnic and national origin groups.

DISCUSSION

This analysis shows that ingroup attitudes can be shaped by raciolinguistic ideologies and context in a similar way to outgroup attitudes. English-dominant Latino Americans engage in more ingroup contact, feel a greater sense of ingroup linked fate, and develop more positive ingroup attitudes in contexts with larger HEP ingroup populations. In contrast, English-dominant Latinos engage in less ingroup contact and hold more negative ingroup attitudes in contexts with larger LEP Latino populations.

The link between language and Asian American identity is weaker than that between language and Latino identity. However, there is still evidence of raciolinguistic context shaping Asian Americans' attitudes. English-dominant Asian Americans engage in more ingroup contact and feel a greater sense of ingroup linked fate in contexts with larger HEP Asian populations and develop more negative ingroup attitudes in contexts with larger LEP Asian populations.

One possible explanation for the difference between the ingroup raciolinguistic context's effects on Latino and Asian Americans lies in the linguistic diversity of Asian Americans. The diversity of heritage languages among Asian Americans may mean that raciolinguistic ideologies have different effects on ingroup attitudes at the panethnic and national origin level. In contrast to Latinos, where raciolinguistic attitudes formed about Spanish likely have similar effects on panethnic and national origin-level attitudes, Asian American's national origin ingroup attitudes may be more shaped by attitudes about their national origin group's heritage languages, while their panethnic

ingroup attitudes may be more shaped by the languages of national origin outgroups. Further complicating this is the possibility that Asian Americans may envision different panethnic prototypes dependent on raciolinguistic and national origin demographic contexts. Asian Americans may be more likely than outgroup members to picture an English speaker when imagining an "Asian American". They also may be more likely to picture a national origin coethnic in contexts where their own national origin group dominates, and a national origin outgroup member in contexts with more intra-Asian diversity. All this suggests that the relationship between raciolinguistic context and Asian American ingroup attitudes provides a fruitful landscape for further research.

Chapter 6

CONCLUSION

This project helps to answer enduring questions in political science. How does context shape group attitudes? Why does proximity to outgroups promote tolerance in some instances but hostility in others? Does context affect ingroup attitudes in addition to outgroup attitudes?

To answer the first question, I propose and validate a pathway through which outgroup context influences group attitudes. First, proximity to outgroup members is associated with two outcomes: it increases the probability of engaging in intergroup contact but also increases perceptions of group threat. These two outcomes have contrasting effects on group stereotypes: while intergroup contact has the potential to dispel negative stereotypes (Allport 1954), group threat reinforces them (Blalock 1967; Blumer 1958; Dixon and Rosenbaum 2004). Finally, negative stereotypes shape affective group evaluations: individuals who endorse more negative stereotypes about a group report more negative attitudes towards it. Using data from a series of original surveys, I demonstrated that there are significant associations and mediating relationships along each step of this pathway.

While this theory shows that positive intergroup contact and group threat have opposing effects, it does not explain why some contexts lead individuals to engage in intergroup contact that overpowers the effects of group threat while other do not. Drawing on the theory of raciolinguistic ideologies (Rosa and Flores 2017), I propose that proximity to outgroup populations with

limited English proficiency reduces opportunities for meaningful intergroup contact while reinforcing negative raciolinguistic stereotypes. Using data from the Nationscape survey and an original series of surveys, I demonstrate that proximity to outgroup populations with limited English proficiency is associated with English monolinguals engaging in less meaningful intergroup contact, endorsing more negative outgroup stereotypes, and expressing more negative outgroup attitudes. Conversely, proximity to outgroup populations with high English proficiency is associated with the opposite: more meaningful intergroup contact, less negative outgroup stereotyping, and more positive outgroup attitudes.

Finally, I explore whether raciolinguistic ideologies may also shape the ingroup attitudes of Asian and Latino American English speakers. Using data from the 2020 Collaborative Multiracial Post-Election Survey and the Nationscape survey, I show that proximity to ingroup populations with limited English proficiency is associated with less socializing with ingroup members and more negative ingroup attitude, while proximity to ingroup populations with high English proficiency is associated with more ingroup socializing, a greater sense of racial linked fate, and more positive ingroup attitudes.

Taken as a whole, this project demonstrates that outgroup context is a significant influence in the development of group attitudes, and that the predictions of intergroup contact theory and group threat theory may not be as contradictory as they seem. Both contact and threat play a role in mediating the relationship between context and attitudes, notably through their differential effects on group stereotypes. By examining demographic factors that

characterize context, such as language, we can better understand why contact dominates in some instances while threat dominates in others.

DIRECTIONS FOR FUTURE RESEARCH

This dissertation provides a foundation for understanding how outgroup context operates through intergroup contact and group threat to shape group stereotypes and attitudes. It also introduces raciolinguistic context as an influence on the development of group stereotypes and a factor in determining whether the effects of intergroup contact or group threat will dominate. In this final section, I propose several directions for analyses to extend this research.

Chapter 4 establishes that English-speaking and non-English-speaking outgroup populations have differential effects on the group attitudes of English speakers, because language barriers impede intergroup contact and reinforce raciolinguistic stereotypes. Future research may examine if other demographic features may similarly predict whether outgroup context will translate into intergroup contact or group threat. For example, can differences in socioeconomic status impede deep intergroup contact and reinforce or challenge group stereotypes?

Chapter 5 includes preliminary evidence that raciolinguistic context affects English-speaking Asian Americans' panethnic and national origin ingroup identification differently. This finding raises several questions for further study. First, if Asian Americans are more likely to apply raciolinguistic ideologies to national origin groups because their panethnic group is not associated with a single heritage language, does this mean that raciolinguistic

context will be more likely to impact attitudes about national origin groups with a single dominant heritage language, such as Korean Americans, than those with multiple major heritage languages, such as Indian Americans? Second, would we see stronger affects among national origin groups with multiple heritage languages if we ask about identification with more narrowly defined ethnolinguistic ingroups: for example, might there be stronger effects of raciolinguistic context on Punjabi or Bengali ingroup identification than Indian, Pakistani, or Bangladeshi American national origin identification?

While Chapter 5 explores differences in the panethnic and national origin identification of Asian Americans, future research may also explore if similar differences exist among Latino Americans. Does the fact that Latinos share a single dominant heritage language mean that there is a higher degree of correspondence between panethnic and national origin identification among Latino Americans? Or might it mean that raciolinguistic context plays a larger role in shaping panethnic identification and a smaller role in influencing national origin ingroup attitudes? A few communities in the United States, such as Alamosa, Colorado; Centreville, Virginia; Dover, Ohio; New Bedford, Massachusetts; New York City; and Oakland, California, have significant populations that speak indigenous languages of Latin America, such as the Mayan languages of Mesoamerica and the Quechuan languages of the Andes (Pentón Herrera 2018). In these contexts, might the greater linguistic diversity of the Latin American–origin population mean that raciolinguistic context may have effects more like those seen among Asian Americans?

Finally, Chapters 4 and 5 focus exclusively on attitudes towards Asian and Latino Americans, because these are the two most prominent groups in the United States that have large non-English-speaking populations. However, future studies could replicate these analyses with other groups of interest. Middle Eastern and North African (MENA) Americans represent one group that may be of interest for future study. The MENA population has grown in prominence in the United States, to the extent that the census will include a "Middle Eastern or North African" category starting in 2030 (Marks, Jones, and Battle 2024). The raciolinguistic context of MENA Americans presents an interesting middle ground between Latinos, who overwhelmingly use one heritage language, and Asian Americans, where no single heritage language dominates. While MENA Americans are most closely associated with the Arabic language, sizeable shares of the population speak other languages like Persian and Turkish, and non-Arabic speaking national origin groups dominate in some local contexts (Marks, Jacobs, and Coritz 2023). Lajevardi and Abrajano (2019) introduce a Muslim American resentment scale, which could be adapted to measure stereotypes about MENA Americans more broadly. Although only a minority of Middle Eastern and North African Americans are Muslim, similar shares of Muslim and non-Muslim Arab Americans report facing ethnic discrimination (Arab American Institute Foundation 2002). This suggests that just as stereotypes about non-English speakers affect attitudes towards English-speaking and non-English-speaking outgroup members alike, stereotypes about Muslims and stereotypes about MENA Americans may not be entirely distinct.

Raciolinguistic ideologies may also play a role in shaping attitudes towards other racial and ethnic groups in certain contexts. For example, C. J. Kim (2000) suggests that Haitian Americans in New York City may be subject to a process of racial triangulation that can be compared to that of Asian Americans. Future research may examine how language barriers may shape intergroup and intragroup attitudes about Black Americans in areas with significant immigrant-origin Black populations.

Appendix 1

DATASETS

Nationscape

The Democracy Fund + UCLA Nationscape survey (Holliday et al. 2021; Tausanovitch and Vavreck 2021) is a nationally representative political survey of American adults that interviewed 488,643 respondents in English between July 18, 2019, and February 5, 2021. The project was an online survey administered by the survey firm Lucid that drew its respondents from numerous online sample providers.

Respondents to the Nationscape survey are asked about their race and Latino ethnicity separately. Respondents may indicate that they are both Latino and members of any other racial group. For this project, I use "Latino" to refer to respondents who indicated that they are Latino and that their race is "white" or "other." I use "white" to refer to respondents who indicated that they are white and not Latino. None of my analyses include multiracial respondents, respondents in racial groups other than Asian American, Black, Latino, or white, or respondents who indicated that they are Latino and a race other than "white" or "other." While this limits the generalizability of my results, this restriction ensures that each subject has a single, clearly defined ingroup identification.

My analyses of this dataset use sample of 20,083 Asian American, 53,618 Black, 70,103 Latino, and 331,356 white respondents. These figures include

12,836 Asian American respondents who do not speak an Asian language at home and 38,880 Latino respondents who do not speak Spanish at home.

YouGov Daily Surveys

YouGov Daily Surveys are a set of questions administered to a nationally representative sample of approximately 1,000 American adults in English. Respondents are sampled from an opt-in online panel. In this project, I use data from three YouGov Daily Surveys. The first two surveys, fielded October 12–14, 2023 and October 13–15, 2023, included questions about interactions with and attitudes towards various racial and language groups. The third, fielded December 8–12, 2023, included questions about interactions with and attitudes towards immigrants and immigration.

The first survey included a sample of 1,066 respondents, the second a sample of 1,012 respondents, and the third a sample of 1,000 respondents. Because the first and second survey included overlapping questions and were fielded during overlapping periods, no respondent who answered the first survey was included in the sample for the second. Of the respondents who answered either of the first two surveys, 60 were also included in the sample of the third survey, yielding a total sample size of 3,018 respondents across the three surveys.

Respondents to YouGov Daily Surveys are asked about their race with a question that asks, "What racial or ethnic group best describes you?" with response options "White", "Black or African American", "Hispanic or Latino", "Asian or Asian-American", "Native American", "Middle Eastern", "Two or more races", and "Other". Respondents who do not select "Hispanic or Latino"

are asked the follow-up question "Are you of Spanish, Latino, or Hispanic origin or descent?" with response options "yes" and "no". My analyses include respondents who indicated that they are Asian American, Black, Latino, or white on the first question. Analyses that are subset by race divide respondents based on their answers to this question. For analyses of outgroup attitudes towards Latinos, I exclude respondents who indicated that they are of Spanish, Latino, or Hispanic descent regardless of their primary racial identification.

My analyses of the first dataset use a sample of 1000 respondents, of whom 36 are Asian American, 131 are Black, 85 are Latino, and 748 are white. My analyses of the second dataset use a sample of 929 respondents, of whom 26 are Asian American, 112 are Black, 109 are Latino, and 682 are white. My analyses of the third dataset use a sample of 919 respondents, of whom 39 are Asian American, 115 are Black, 123 are Latino, and 642 are white.

Collaborative Multiracial Post-Election Survey

The 2020 Collaborative Multiracial Post-Election Survey (CMPS) (Frasure et al. 2021) is a political survey of American adults with oversamples of Asian American, Black, and Latino respondents fielded between April 2 and August 25, 2021 in English, Spanish, simplified and traditional Chinese, Korean, Arabic, Urdu, Farsi, and Haitian Creole. Respondents were drawn from multiple sources: some were sampled from email lists and directly invited, while others were drawn from various online sample providers.

Respondents to the CMPS are asked about their race with a question that asks "What do you consider your race or ethnicity? Mark one or more boxes?" and offers response options of "White", "Hispanic or Latino", "Black or

African American", "Asian American", "American Indian/Native American", "Arab, Middle Eastern, or North African", "Native Hawaiian", and "Not Hawaiian, but other Pacific Islander". Respondents who choose multiple responses are asked the follow-up question "Even if they are all important, which of these would you consider your primary race or ethnicity, if you had to choose one?"

My analysis of CMPS data draws on a sample of 3,826 respondents who indicated that their primary racial identity is Asian American, of whom 762 were born in the United States and "almost never" speak an Asian language, and 3,529 respondents who indicated that their primary racial identity is Latino, of whom 390 were born in the United States and "almost never" speak Spanish.

Appendix 2

OUTGROUP CONTEXT AND GEOGRAPHY

When operationalizing outgroup context, several geographic levels of analysis are available. To be useful for analysis of outgroup context across the United States, a geographic level must meet at least two criteria: it must cover all populated areas of the United States and the Census Bureau must release sufficient data at that level. Seven geographies fit these criteria: from largest to smallest, they are states (plus the District of Columbia), congressional districts (treating DC as equivalent to a congressional district), census public use microdata areas (PUMAS), counties, census tracts, zip code tabulation areas (ZCTAS), and county subdivisions. Census block groups may also be used for some analyses, but the Census Bureau only publishes limited demographic information at this level, making it unsuitable for analysis of most topics. Other commonly used levels for demographic data fail to meet these criteria. For example, metropolitan statistical areas cannot be used because they exclude rural areas and census blocks cannot be used because the Census Bureau only publishes basic statistics from the decennial census at this level.

While gapless national coverage and data availability are minimal requirements for assessing outgroup context, an ideal geographic level should meet additional criteria. First, there should be enough geographic units to allow for reasonable variation in outgroup context. When using outgroup context as the independent variable in an analysis, each geographic unit acts as a clustering variable, because all individuals located in the same

geographic unit will be assigned the same value for the independent variable. For example, because there are only 51 units at the state level (the fifty states and DC), a cluster-robust model that assigns outgroup context based on state may be hampered by limited degrees of freedom even if it has a large sample of individuals.

Second, a useful geographic level for modeling outgroup context should represent an area in which residents are likely to come into contact with one another. States again fail to meet this criterion, as most states have populations and areas that are far too large to suggest that their residents are likely to interact. Congressional districts also fail this criterion, but for a different reason. In many states, congressional districts are designed to separate communities and group together physically distant populations, either to comply with the Voting Rights Act or for partisan gerrymandering. For example, Figure 25 illustrates that Maryland's 3rd congressional district follows a narrow, meandering path to group several disparate population centers into a single district. As a result, congressional districts often do not represent populations that are likely to interact.

A subtler implication of this criterion informs how the area and population of an ideal geographic unit should be related. When compared to residents of urban areas, those in rural regions generally interact with fewer people each day. But rural dwellers also usually travel further than urbanites for day-to-day tasks, suggesting that those in rural areas may come across people over a larger geographic area than those in urban areas. Therefore, the ideal level of analysis for demographic context should have units that vary in both population and area, with each unit's population and area inversely associated.

Figure 25: Congressional districts in Maryland. The state's irregularly shaped 3rd congressional district is shaded in grey.

This reveals a weakness of several geographies. Census tracts and public use microdata areas are each delineated by the Census Bureau with the goal of including the necessary population for releasing sufficiently deidentified tabular and individual-level data, respectively. As a result, both geographies display limited variation in population by design. Similarly, congressional districts are mandated to have similar populations, ensuring they display very low variation in population.

Counties present an interesting case due to the variability in their construction across states. In some states, counties demonstrate the desired inverse relationship between area and population, but in others, they do not. For example, Figure 26 shows the counties of Maine and Iowa. Maine's irregularly shaped counties grow larger as one moves from its more densely populated southern coast towards its sparsely populated northern interior. On the other hand, Iowa's counties, which are largely delineated by a grid, have little

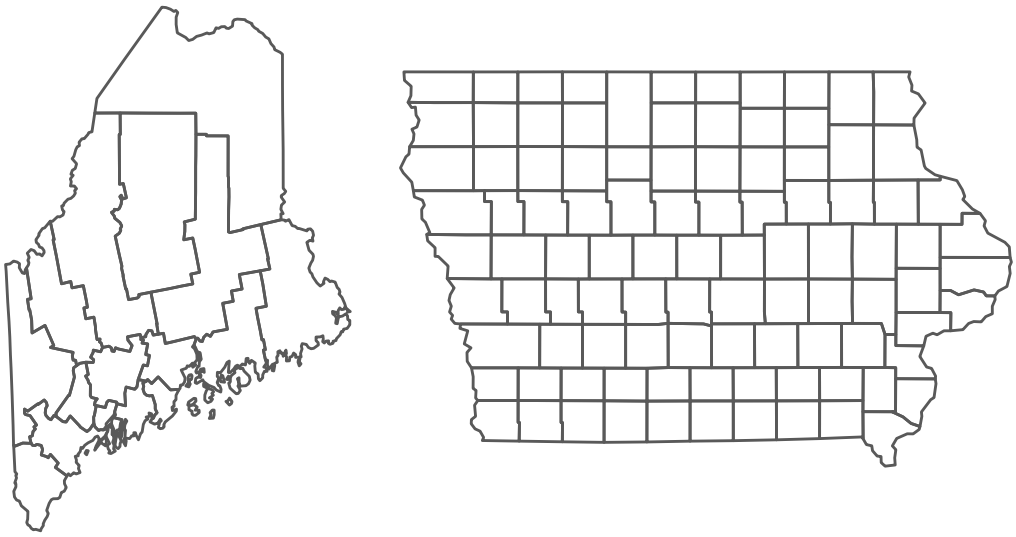

Figure 26: Counties in Maine and Iowa.

association between size and population. In states like Maine with more freeform county lines, counties may provide adequate units for analysis of outgroup context, but in states like Iowa where county lines bear little relationship to population distribution, it is unlikely that a county could reasonably model an outgroup context.

Table 32 summarizes the distribution of area and population across units for each geographic level under consideration and presents the results of a linear regression model predicting the area of a geographic unit based on its area. Data is derived from the United States Census Bureau's American Community Survey five-year aggregation from 2018–2022 and shape files of each geographic unit produced by the Census Bureau; both datasets are distributed by IPUMS NHGIS (Manson et al. 2023). Of the geographic levels, only three exhibit the desired negative association between population and area: census tracts, zip code tabulation areas (ZCTAs), and block groups. However, both census tracts and block groups are designed to have little variation in their

	Area (mi^2) *(percentile)*			Population *(percentile)*		
Geographic level	5%	50%	95%	5%	50%	95%
State	3,395	53,654	150,705	702,704	4,502,935	20,814,454
Congressional district	64.4	2,155	33,262	683,484	752,864	854,906
PUMA	11.4	126	4,842	103,101	128,299	184,924
County	209	616	3,233	2,615	25,785	453,997
Census tract	0.154	1.76	139	1,601	3,775	6,930
ZCTA	0.405	35.0	291	149	2,988	42,802
County subdivision	0.907	35.7	277	72	1,563	33,007
Block group	0.052	0.504	42.4	519	1,257	2,700

	Area ~ Population *(OLS)*				
Geographic level	β coefficient	Standard error	t statistic	p value	N
State	0.152	0.166	0.915	0.364	51
Congressional district	0.013	0.069	0.188	0.851	436
PUMA	0.002	0.019	0.084	0.933	2,462
County	0.027	0.016	1.750	0.080	3,144
Census tract	−0.039	0.005	−8.508	$< 0.001^{***}$	83,555
ZCTA	−0.064	0.004	−16.977	$< 0.001^{***}$	32,184
County subdivision	0.019	0.003	6.177	$< 0.001^{***}$	34,139
Block group	−0.018	0.003	−5.816	$< 0.001^{***}$	237,110

Table 32: Distributions of area and population across seven geographic levels of analysis and results of regression models predicting the area of a geographic unit based on its population. Coefficients are in terms of standard deviations. Robust standard errors are reported.

population sizes. These geographic levels exhibit much lower variation in population and a weaker association between population and area than ZCTAs. Additionally, block groups are unsuitable for most analyses because the Census Bureau does not make most data available at this level.

The negative association between a ZCTA's area and population is readily apparent when examining a map of ZCTAs. For example, Figure 27 shows the ZCTA boundaries within Clark County, Nevada. The urbanized area surrounding Las Vegas, in the center of the county, is made up of small, densely packed ZCTAs, while the rural outskirts of the county are divided into large, sprawling ZCTAs. While Las Vegas, a major city in a sparsely populated desert,

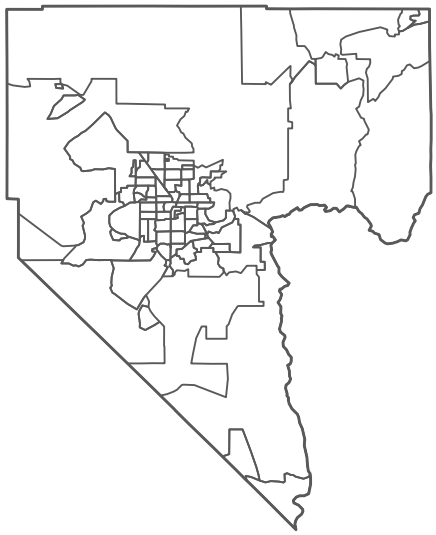

Figure 27: Zip code tabulation areas in Clark County, Nevada. Las Vegas is surrounded by small, densely packed ZCTAs.

is an extreme case, all areas of the country follow the trend exemplified by Clark County, with small urban, medium suburban, and large rural ZCTAs.

Given this analysis, I hypothesize that zip code tabulation areas provide the best geographic level of analysis for investigating the effects of outgroup context. In the remainder of this section, I conduct an empirical analysis to investigate how outgroup context measured at different geographic levels of analysis predicts intergroup interaction. Then, I provide background information on zip code tabulation areas.

ANALYSIS

Method

To empirically assess the appropriate geographic level to use when analyzing outgroup context, I investigated the extent to which demographics

measured at different levels of geographic specificity correlate with opportunities for outgroup contact. I administered a set of survey questions to 2,078 YouGov panelists to measure how often they engage in superficial contact with members of different demographic groups (see Appendix 1 for more information about YouGov data). Each question started with the tag phrase "How often, if at all, do you have everyday relationships (such as exchanging a few words, buying something at a store, and so on) with...?" and then presented a group, including "Asian Americans," "Black or African Americans," "Hispanic or Latino Americans," and "White Americans." This question is adapted from one used in Reny and Barreto (2022).

I conducted a linear regression analysis predicting responses to each of these four questions. For each outcome, I analyzed only responses from outgroup members; for example, when predicting superficial contact with Latinos, I analyzed the responses of Asian, Black, and white respondents who indicated that they were not Hispanic or Latino. I limited my sample to respondents who indicated that their race was Asian, Black, Latino, or white and that they were not multiracial, to ensure that each respondent would be part of the sample for exactly three of the four models.

I predicted responses based on the population share of the outcome group that live in the same area as the respondent, based on data from the American Community Survey five-year aggregation from 2018–2022, retrieved from IPUMS NHGIS (Manson et al. 2023). I replicated each model at the eight geographic levels: state (plus DC), congressional district (plus DC), PUMA, county, census tract, ZCTA, county subdivision, and block group. (While the Census Bureau does not release most data at the block group level, the block

group data needed for this analysis is available.) Each model included controls for age, college education, gender, race, and the logged population density of the geographic level.

I matched panelists to data about their geographic context by spatially joining their responses with shape files of the different geographic levels produced by the Census Bureau and distributed by IPUMS NHGIS (Manson et al. 2023). Most YouGov users enter their home address when registering as panelists and are periodically prompted to update their information. This is used to geolocate panelists, allowing panelists to be matched to geographic levels that they would generally not be able to self-report, such as their census tract.

Results

Results of this analysis are summarized in Table 33. Across all four models, most geographic levels of analysis produce results that show a significant association between demographic context and superficial contact. While analysis at the state level has the largest associated β coefficient, it is the only level that does not, on average, produce a significant association, likely because of the lower variation afforded by using a geographic level with only 51 individual observations of the independent variable. Using zip code tabulation areas (ZCTAs) produces the most significant results (as determined by t statistic and p value) and the best model fit (as determined by R^2 value).

Geographic level	β coefficient	Standard error	t statistic	p value	R^2	N
State	0.338	0.181	2.165	0.099	0.047	1,044
Congressional district	0.287	0.097	2.985	0.010**	0.049	1,044
PUMA	0.260	0.086	3.057	0.008**	0.064	1,044
County	0.251	0.107	2.518	0.017*	0.054	1,044
Census tract	0.196	0.072	2.844	0.009**	0.062	1,042
ZCTA	0.224	0.077	2.980	0.007**	0.067	1,038
County subdivision	0.254	0.101	2.714	0.010*	0.058	1,044
Block group	0.183	0.065	2.922	0.007**	0.059	1,040

Table 33: Results showing the average association between the share of the population of a geographic area that is Asian, Black, Latino, or white and the likelihood of outgroup members having superficial contact with a member of that group. Columns for β coefficient, standard error, t statistic, and N include arithmetic means across four models. Columns for p value and R^2 include geometric means. Cluster robust standard errors are reported. Sample size has slight variance across models because some respondents live in census tracts, ZCTAs, or block groups with populations that are too small for the ACS to report reliable demographic information.

Discussion

This analysis motivates my decision to use zip codes as the preferred geographic level of analysis for individuals' demographic contexts, given that ZCTA-level analysis reveals the most significant association between individual's demographic context and level of contact with outgroup members. This analysis also suggests that other geographic levels can serve as reliable proxies for a respondent's opportunity for outgroup contact when zip code-level data is unavailable. Of the geographic levels analyzed, only state-level demographic context is not significantly associated with increased outgroup contact. Therefore, analyses using other geographic levels such as PUMA or county may also be sufficiently powered to detect effects of demographic context. In the

remainder of this appendix, I provide additional information about zip code tabulation areas.

ZIP CODE TABULATION AREAS

The United States Census Bureau (2021) uses the zip code tabulation area (ZCTA) as a geographic level for the publication of demographic data. A ZCTA corresponds to the population in the service area of a zip code. According to the United States Postal Service Office of Inspector General (2013), each zip code is intended to represent the delivery area of one post office. The United States Postal Service uses zip codes to route mail to individual post offices, and the post office then handles delivery to specific addresses within that zip code. In other words, all addresses that share a zip code are generally served by the same physical post office building. This makes the area covered by a zip code a reasonable approximation for a local community: a ZCTA may correspond to a neighborhood in an urban area, a town in a suburban area, or a region that shares major services in a rural area.

The United States Census Bureau (2021) introduced the ZCTA to address specific deficiencies of using zip codes assigned by the Postal Service for demographic research. First, the Postal Service does not officially define zip codes as two-dimensional geographic areas; a zip code is simply a mail delivery route and can therefore be thought of as a set of discrete geographic points. Following the strictest definition, your mailbox and your neighbor's mailbox each have a zip code assigned to them, but the space in between is not associated with any zip code at all. Because the Postal Service does not maintain any official definition of the area covered by a zip code, the Census Bureau creates

its own definition. To create a geographic representation of zip codes, census blocks are assigned to ZCTAs based on the predominant zip code of addresses within the block. Another difference between zip codes and ZCTAs is that some zip codes are not assigned to any residences; entities that receive a large volume of mail, such as government offices, universities, or large businesses, may have their own onsite post offices and therefore their own zip codes. Non-residential zip codes are not mapped to ZCTAs, ensuring every ZCTA represents a populated area. The ZCTA adapts the zip code as officially defined by the Postal Service into a representation useful for demographic research. It provides a geographic definition that matches the common understanding of the zip code as a label for a neighborhood or community.

While the use of zip codes in research has increased over time, their applicability has faced questioning from some researchers (Grubesic 2008). A zip code is not defined by municipal lines, and zip codes are not intended to have uniform populations or areas. Instead, zip codes are designed only for the purposes of the United States Postal Service. But while this may call into question their applicability for most avenues of research, I argue this makes them ideal for the study of outgroup context. A population that shares a zip code is a population that shares a post office. This may be a small, widely spread population in a rural area or a large, densely packed population in an urban area. While most people do not travel to the post office each day, the distance covered by a ZCTA is comparable to the distance that its residents must travel to reach other services each day. Those in rural areas may have to travel many miles not just to reach their post office, but also their nearest grocery store, doctor's office, or school. Conversely, those in dense urban areas may be able

to reach all these same services by traveling only a few blocks. Consequently, while urban residents may interact with many more people each day than rural dwellers, these potential interactions are likely drawn from a smaller geographic context. This means the uneven geographic and demographic footprints of zip codes mirror the different contexts of urban and rural life.

Another advantage of the ZCTA is that it is not tied to any government service besides the planning of mail routes. Using other geographic levels to study demographics can suffer from problems of endogeneity. For example, congressional districts may be drawn to pack or crack different racial groups for electoral benefits. This may make districts appear much more diverse or homogeneous than would accurately reflect residents' day-to-day experiences. Other geographic boundaries, like states and counties, are less likely to be strategically designed, but residents may nevertheless choose to cross over these lines based on policy preferences. Given that mail carriers have much less impact on people's lives than their state or local government, it is unlikely that the demographics of a ZCTA will be affected by community members intentionally deciding which side of a zip code boundary to live on.

Appendix 3

RACIAL RESENTMENT SURVEY SCALES

Survey respondents' group stereotypes were measured by administering racial resentment scale items. Each item was preceded by the introductory text "Please indicate whether you [agree or disagree / disagree or agree][4] with the following statements." Responses options were "Strongly agree" (coded as 1, or 0 on reverse-coded items), "Somewhat agree" (0.75, 0.25), "Somewhat disagree" (0.25, 0.75), "Strongly disagree" (0, 1), and "Not sure" (always coded as 0.5). This appendix includes the text of the specific items that make up each scale.

Asian American resentment scale (D. G. Kim 2022)

1. Asian Americans are often overly competitive for their success.
2. When it comes to education, Asian Americans strive to achieve too much.
3. Asian Americans need to embrace American values more.
4. It is annoying when Asian Americans speak in their own languages in public places.
5. Asian Americans make the job market too competitive.

Black American resentment scale (Kinder and Sanders 1996)

1. Irish, Italian, and Jewish ethnicities overcame prejudice and worked their way up. Blacks should do the same without any special favors.

[4] Response options are randomly reversed. When response options are reversed, the question instructions are reversed to match.

2. Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class *(reverse-coded).*
3. Over the past few years, blacks have gotten less than they deserve *(reverse-coded).*
4. It's really a matter of some people just not trying hard enough: if blacks would only try harder they could be just as well off as whites.
5. Government officials usually pay less attention to a request or complaint from a black person than from a white person *(reverse-coded).*
6. Most blacks who receive money from welfare programs could get along without it if they tried.

Latino American resentment scale (Ocampo and Garcia-Rios 2020)

1. Generation after generation Latinos continue to have strong attachments to their country of origin.
2. Most Latinos in our country today want to adopt American customs and way of life *(reverse-coded).*
3. The distinct nature of Latino culture and traditions enriches American culture for the better *(reverse-coded).*
4. Even after several generations in America, Latinos continue to have a tendency to get involved in gangs and organized crimes.
5. Latinos rely on social welfare programs to maintain their families.
6. Latinos don't value education and oftentimes end up dropping out of high school.

7. Over the past few years, Latinos have gotten more economically than they deserve.

Immigrant resentment scale (adapted from D. G. Kim 2022; Ocampo and Garcia-Rios 2020)

1. Generation after generation immigrants continue to have strong attachments to their country of origin.
2. Most immigrants in our country today want to adopt American customs and way of life *(reverse-coded).*
3. The distinct nature of immigrants' cultures and traditions enriches American culture for the better *(reverse-coded).*
4. Even after years in America, immigrants continue to have a tendency to get involved in gangs and organized crimes.
5. It is annoying when immigrants speak in their own languages in public places.
6. Immigrants are often overly competitive for their success.

Appendix 4

THE SOBEL TEST

The Sobel test is a method for determining if the relationship between an independent and a dependent variable is mediated by a third variable, a mediator. The relationship between the three variables in a Sobel test is illustrated in Figure 28. The Sobel test is conducted by running three regression models.

The first model tests the association between the independent variable and dependent variable without accounting for the mediator. This yields a regression coefficient τ.

The second model tests the association between the independent variable and the mediator. This yields a regression coefficient α.

The third model tests the association between the independent variable and the dependent variable controlling for the mediator. This yields two regression coefficients: τ', the association between the independent and dependent variables when controlling for the mediator, and β, the association between the mediator and the dependent variable.

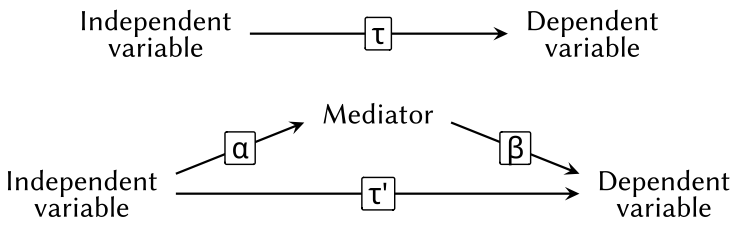

Figure 28: Relationships between variables in a Sobel test.

A Sobel test provides significant evidence of a mediation relationship when $\tau - \tau'$, the difference between the independent variable's effect on the dependent variables when the mediator is excluded from and included in the model, is statistically significant. The standard error of this difference can be most conservatively estimated as $\sigma_{\tau-\tau'} = \sqrt{\alpha^2\sigma_\beta^2 + \beta^2\sigma_\alpha^2 + \sigma_\alpha^2\sigma_\beta^2}$ (MacKinnon et al. 2002).

Appendix 5

CONTACT AND IMMIGRATION POLICY PREFERENCES

A question of practical importance to political scientists is how the relationships between outgroup contact, stereotypes, and attitudes may impact opinions about political issues. Examining attitudes towards immigrants provides a fruitful case for analyzing this relationship, given that immigration policies are salient to Americans and their effects on immigrants are clear. This makes it straightforward for Americans to translate attitudes towards immigrants into immigration policy preferences.

I hypothesize that policy preferences are shaped by group attitudes, which in turn are shaped by stereotypes, which in turn are shaped by contact. This hypothesized relationship can be tested using a two-mediator serial mediation analysis, as described in Gyasi et al. (2022). The proposed mediation chain is illustrated in Figure 29. Demonstrating that this relationship exists requires providing evidence for four individual mediation relationships: that (1) stereotypes mediate the relationship between contact and group attitudes, that (2) group attitudes mediate the relationship between stereotypes and policy preferences, and that (3) stereotypes and (4) group attitudes both mediate the relationship between contact and policy preferences.

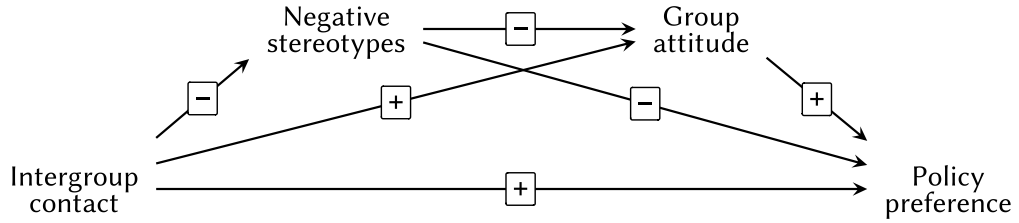

Figure 29: Hypothesized association between intergroup contact and policy preferences, serially mediated by negative group stereotypes and group attitudes.

To assess the relationship between contact with immigrants and immigration policy attitudes, I analyze responses from 1,000 respondents to the YouGov Daily Surveys (see Appendix 1 for more information about this dataset). To measure policy preferences towards immigrants, respondents were asked "Do you think the federal government should increase or decrease the level of legal immigration into the United States, or leave the level the same?" with response options of "Increase legal immigration" (coded as 1), "Decrease legal immigration" (0), "Not change the level of legal immigration" (0.5), and "Not sure" (excluded). Figure 30 plots the distribution of responses to this question. Support for each of the three policy options is relatively even, with slightly more than a third of respondents expressing support for reducing authorized immigration and slightly less than a third expressing support for expanding it. Operationalizations of other variables of interest are described in Chapter 3.

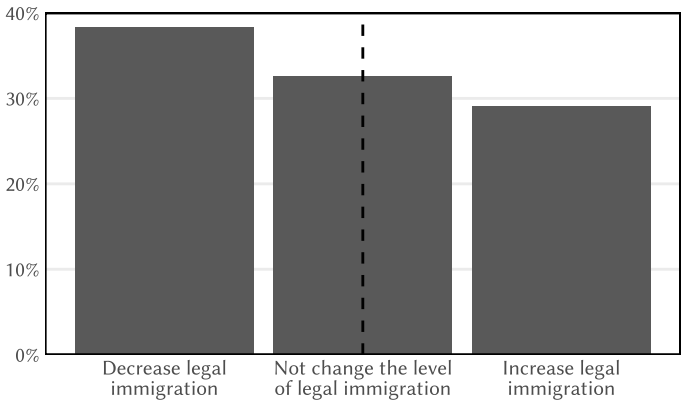

Figure 30: Distribution of immigration policy preferences among non-immigrant survey respondents. Dashed line indicates the median response.

To test the relationship between contact with immigrants, stereotyping, group attitudes, and immigration policy preferences, I perform a two-mediator serial mediation analysis, following the method laid out in Gyasi et al. (2022). Table 34 summarizes the results of this analysis. Models 1, 2, and 3 duplicate those summarized in Table 11 in Chapter 3. The mediation analysis in these models establishes that anti-immigrant resentment mediates the relationship between deep contact and group attitudes.

Models 4, 5, and 6 test whether group attitudes mediate the relationship between anti-immigrant resentment and immigration policy preferences. Model 4 establishes that group attitudes are significantly associated with anti-immigrant resentment. Models 5 and 6 show that the magnitude of the association between resentment and policy preferences decreases when controlling for group attitudes. The significant Sobel test provides evidence that group attitudes mediate the relationship between resentment and policy preferences (see Appendix 4 for methodological information about the Sobel test).

	Dependent variable:									
	Resent.	Group attitude			Policy preference					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Deep contact	−0.048*	0.176***	0.114***				0.093*	0.045	−0.003	−0.002
	(0.020)	(0.042)	(0.033)				(0.037)	(0.032)	(0.029)	(0.029)
Immigrant resentment			−1.286***	−1.313***	−1.013***	−0.467***		−1.002***		−0.467***
			(0.060)	(0.059)	(0.062)	(0.083)		(0.063)		(0.083)
Group attitude						0.415***			0.551***	0.416***
						(0.043)			(0.031)	(0.043)
Age	0.000	−0.002*	−0.001*	−0.002**	−0.002**	−0.001	−0.002*	−0.002*	−0.001	−0.001
	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
Bachelor's degree	−0.107***	0.179***	0.041	0.051	0.091**	0.070*	0.195***	0.088**	0.096**	0.070*
	(0.019)	(0.041)	(0.032)	(0.032)	(0.032)	(0.028)	(0.036)	(0.032)	(0.029)	(0.028)
Male	0.006	0.030	0.038	0.038	0.077**	0.061*	0.071*	0.077**	0.054*	0.061*
	(0.017)	(0.035)	(0.028)	(0.028)	(0.028)	(0.025)	(0.032)	(0.028)	(0.026)	(0.025)
Log zip code pop. density	−0.005	0.013	0.005	0.008	−0.003	−0.006	0.001	−0.004	−0.005	−0.006
	(0.004)	(0.008)	(0.007)	(0.007)	(0.007)	(0.006)	(0.008)	(0.007)	(0.006)	(0.006)
Intercept	0.449***	0.714***	1.291***	1.392***	1.135***	0.557**	0.646***	1.095***	0.252	0.558**
	(0.052)	(0.116)	(0.102)	(0.093)	(0.140)	(0.154)	(0.150)	(0.144)	(0.153)	(0.158)
Immigrant generation FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Race FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sobel test			0.062*			−0.545***		0.049*	0.097***	0.096***
			(0.026)			(0.063)		(0.020)	(0.024)	(0.019)
Observations	572	572	572	572	572	572	572	572	572	572
R^2	0.136	0.154	0.468	0.456	0.366	0.478	0.141	0.369	0.447	0.478
Adjusted R^2	0.116	0.134	0.455	0.444	0.352	0.465	0.121	0.353	0.433	0.464
										Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 34: Results of a serial mediation analysis predicting immigration policy preferences of non-immigrant survey respondents based on deep contact, with anti-immigrant resentment and group attitudes acting as serial mediators. Standard errors are cluster robust at the zip code level.

Models 7 and 8 test whether the relationship between deep contact and policy preferences are mediated by anti-immigrant resentment. Model 7 shows that there is a significant positive association between deep contact with immigrants and support for pro-immigrant policy. Model 8 shows that the magnitude of this association decreases to insignificance when controlling for anti-immigrant resentment. Results of the Sobel test confirm that this decrease is

statistically significant. Because model 1 demonstrates that there is a significant relationship between deep contact and anti-immigrant resentment, this is evidence that anti-immigrant resentment mediates the relationship between deep contact and policy preferences.

Similarly, model 9 shows that the magnitude of the association between deep contact and policy preferences decreases when controlling for group attitudes. This model's Sobel test also shows that this decrease is significant. Because model 2 demonstrates that there is a significant association between deep contact and group attitudes, this provides evidence that the relationship between deep contact and policy preferences is mediated by group attitudes.

Finally, model 10 shows that the magnitude of the association between deep contact and policy preferences decreases when controlling for both anti-immigrant resentment and group attitudes, with a significant Sobel test. This provides evidence that anti-immigrant resentment and group attitudes jointly mediate the relationship between deep contact and policy preferences.

In sum, the models summarized in Table 34 support the hypothesized serial mediation relationship illustrated in Figure 29. Deep contact with immigrants is associated with increased support for pro-immigrant policy. This relationship operates through deep contact decreasing anti-immigrant resentment, which improves group attitudes towards immigrants, which increases pro-immigrant policy preferences.

IMMIGRATION POLICY PREFERENCES BASED ON LANGUAGE AND CONTACT

While the previous analysis established that contact with immigrants is associated with increased support for pro-immigrant policies, analysis in

Chapter 4 demonstrates that contact can have different associations with attitudes depending on language. Because contact with English as a second language speakers is associated with a reduction in negative stereotypes of immigrants and more positive attitudes towards immigrants, I expect that English monolingual non-immigrants with higher levels of contact with ESL speakers will be more supportive of pro-immigrant policies. Conversely, given that contact with non-English speakers is associated with increased negative stereotyping and more negative attitudes, English speakers with higher levels of contact with non-English speakers should be more likely to support restrictive immigration policies.

To test these hypotheses, I conduct a regression analysis predicting immigration policy preferences based on contact with English as a second language (ESL) speakers and non-English speakers. These variables are described in the previous analysis and in Chapter 4. I limit my analysis to a sample of non-immigrant, English-monolingual respondents. This means that those engaging in contact with non-English speakers are doing so through a language barrier.

Results of this analysis are summarized in Table 35. Model 1 provides evidence for a significant association between contact with ESL speakers and pro-immigrant policy preferences. Model 3 shows that when controlling for the contact with non-English speakers, this association is even stronger. While model 2 does not provide evidence for a significant association between contact with non-English speakers and policy preferences, model 3 shows that there is a significant association between contact with non-English speakers

	Dependent variable:					
	Attitude towards immigrants			Immigration policy preference		
	(1)	(2)	(3)	(4)	(5)	(6)
Contact with English as a second language speakers	0.250*** (0.063)		0.384*** (0.081)	0.189** (0.059)		0.341*** (0.077)
Contact with non-English speakers		0.021 (0.062)	−0.211* (0.081)		−0.034 (0.058)	−0.241** (0.078)
Age	−0.003*** (0.001)	−0.003*** (0.001)	−0.003** (0.001)	−0.003** (0.001)	−0.003** (0.001)	−0.002** (0.001)
Bachelor's degree	0.166*** (0.042)	0.191*** (0.041)	0.163*** (0.042)	0.188*** (0.037)	0.209*** (0.037)	0.184*** (0.037)
Male	0.034 (0.036)	0.036 (0.036)	0.031 (0.036)	0.071* (0.033)	0.073* (0.033)	0.068* (0.033)
Log zip code population density	0.014 (0.009)	0.019* (0.009)	0.017 (0.009)	0.001 (0.008)	0.005 (0.008)	0.004 (0.008)
Intercept	0.722*** (0.110)	0.833*** (0.105)	0.720*** (0.110)	0.619*** (0.151)	0.717*** (0.149)	0.616*** (0.146)
Immigrant generation fixed effects	✓	✓	✓	✓	✓	✓
Race fixed effects	✓	✓	✓	✓	✓	✓
Observations	564	564	564	564	564	564
R^2	0.148	0.127	0.158	0.149	0.134	0.164
Adjusted R^2	0.128	0.106	0.137	0.129	0.114	0.143
						Note: $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 35: Results of regression models predicting attitudes towards immigrants and immigration policy preferences based on contact with English as a second language speakers and non-English speakers. Standard errors are cluster robust at the zip code level.

and restrictionist policy preferences when controlling for the positive effects of contact with ESL speakers.

This analysis demonstrates that the language of contact plays an important role in shaping how contact affects immigration policy preferences. Contact with ESL speakers is associated with more pro-immigrant policy preferences but contact with non-English speakers is associated with more support for anti-immigrant policies.

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